Encore! Encore! Encore!

•

Emerson said, "What we admire in old things is their naturalness."

Thus, we send you the oldest wish we know:

"A Merry Christmas and a Happy New Year."

•

Phoenix Metal Cap Co.

OFFICES: *Chicago*, 2444 West 16th Street; *Brooklyn*, 3720 14th Avenue; *Philadelphia*, 1601 Fox Theatre Bldg.; *Boston*, 131 State Street; *Cleveland*, 1109 Guardian Bldg.; *Cincinnati*, 607 American Bldg.; *St. Louis*, 5820 Itasca Street; *San Francisco*, 200 Davis Street; *Los Angeles*, 765 Stanford Avenue.

Buyers' Guide

The firms listed below are reliable sources of supply which we are glad to recommend to our readers.

Medicinal Chemicals
Abbott Laboratories
J. T. Baker Chemical Co.
Benzol Products Co.
California Fruit Growers Exchange
Dow Chemical Co.
Heyden Chemical Corp.
Mallinckrodt Chemical Works
Merck & Co., Inc.
Monsanto Chemical Works
N. Y. Quinine & Chemical Works
Chas. Pfizer & Co., Inc.
Sherka Chemical Co.

Alcohol
A. K. Hamilton
Rossville Commercial Alcohol Corp.
U. S. Industrial Alcohol Co.

Alkaloids
Abbott Laboratories
J. T. Baker Chemical Co.
Mallinckrodt Chemical Works
Merck & Co., Inc.
N. Y. Quinine & Chemical Works

Bromides
J. T. Baker Chemical Co.
Mallinckrodt Chemical Works
Merck & Co., Inc.
N. Y. Quinine & Chemical Works

Citric Acid
H. J. Baker & Bro.
J. T. Baker Chemical Co.
California Fruit Growers Exchange
Dodge & Olcott Co., Inc.
Mallinckrodt Chemical Works
Merck & Co., Inc.
N. Y. Quinine & Chemical Works
Chas. Pfizer & Co., Inc.

Glandular Products
Wilson Laboratories

Magnesia
Schofield-Donald Co., Inc.

Salicylates
J. T. Baker Chemical Co.
Dow Chemical Co.
Heyden Chemical Corp.
Mallinckrodt Chemical Works
Merck & Co., Inc.
Monsanto Chemical Works
N. Y. Quinine & Chemical Works

Aromatic Chemicals
W. J. Bush & Co., Inc.
California Fruit Growers Exchange
Dodge & Olcott Co., Inc.
P. R. Dreyer, Inc.
E. I. du Pont de Nemours & Co., Inc.
Benj. French, Inc.
Fritzsche Brothers, Inc.
Givaudan-Delawanna, Inc.
Magnus, Mabee & Reynard, Inc.
Compagnie Parento, Inc.
Sherka Chemical Co.
A. M. Todd Co.
Ungerer & Co.
van Ameringen-Haebler, Inc.

Essential Oils
W. J. Bush & Co., Inc.
California Fruit Growers Exchange
Dodge & Olcott Co., Inc.
P. R. Dreyer, Inc.
Fritzsche Brothers, Inc.
Magnus, Mabee & Reynard, Inc.
Compagnie Parento, Inc.
A. M. Todd Co.
Ungerer & Co.
van Ameringen-Haebler, Inc.

Flavors
W. J. Bush & Co., Inc.
California Fruit Growers Exchange
Dodge & Olcott Co., Inc.
P. R. Dreyer, Inc.
Fritzsche Brothers, Inc.
A. K. Hamilton
Magnus, Mabee & Reynard, Inc.
Monsanto Chemical Works
Compagnie Parento, Inc.
Ungerer & Co.
van Ameringen-Haebler, Inc.

Cocoa Butter
R. F. Revson Co.

Cod Liver Oil
W. Benkert & Co., Inc.
P. R. Dreyer, Inc.
McKesson & Robbins, Inc.
S. B. Penick & Co.

Mineral Oil
M. W. Parsons, Imports
Schliemann Companies, Inc.
S. Schwabacher & Co., Inc.
L. Sonneborn Sons, Inc.
Stanco Distributors, Inc.

Quinine
Mallinckrodt Chemical Works
Merck & Co., Inc.
N. Y. Quinine & Chemical Works

Cosmetic Materials
J. L. Hopkins & Co.
M. W. Parsons, Imports
John Powell & Co., Inc.
R. F. Revson Co.

Cosmetics (Private Brand)
Sterling Manufacturing Co.

Bath Crystals
Solvay Sales Corp.

Botanical Drugs
W. Benkert & Co., Inc.
J. L. Hopkins & Co.
Peek & Velsor, Inc.
S. B. Penick & Co.

Absorption Bases
Th. Goldschmidt Corp.
M. W. Parsons, Imports

Beeswax
Koster-Keunen
Theodor Leonhard Wax Co., Inc.
Will & Baumer Candle Co.

Chalk
Industrial Chemical Sales Co. Inc
John & E. Sturge, Ltd.

Colors
Interstate Color Co., Inc.
R. F. Revson Co.

Gums
J. L. Hopkins & Co.
S. B. Penick & Co.
Thurston & Braidich

Lanolin
American Lanolin Corp.
Bopf-Whittam Corp.

Rubber Latex
Heveatex Corporation

Stearates
Franks Chemical Products Co.
Mallinckrodt Chemical Works
M. W. Parsons, Imports

Titanium Dioxide
Titanium Pigment Co.

Zinc Oxide
New Jersey Zinc Co.

Containers & Machinery

Bottles
Carr-Lowrey Glass Co.
Hagerty Bros. & Co.
Hart Glass Mfg. Co.
Hazel-Atlas Glass Co.
Maryland Glass Corp.
Owens-Illinois Glass Co.

Boxes & Cartons
Crosby Carton Co., Inc.
H. R. M. Gordon
C. F. Hatch Co.
National Metal Edge Box Co.
Douglas Young, Inc.

Collapsible Tubes
National Collapsible Tube Co.

Labels
John Horn

Glassine Paper
Riegel Paper Corp.

Packing Material
Kimberly-Clark Corp.

Vials
Kimble Glass Co.

Corks
Arco Crown Cork & Cap Co.
Armstrong Cork & Insulation Co.

Metal Caps
Aluminum Seal Co.
Anchor Cap & Closure Corp.
Arco Crown Cork & Cap Co.
Armstrong Cork & Insulation Co.
Crown Cork & Seal Co.
Ferd. Gutmann & Co.
Phoenix Metal Cap Co.

Molded Caps & Containers
Anchor Cap & Closure Corp.
Armstrong Cork & Insulation Co.
General Plastics, Inc.
Resinox Corp.

Liners
Armstrong Cork & Insulation Co.

Filter Paper
August Giese & Son

Tablet Counting & Filling Machinery
John W. Ayers & Son

Capping, Filling & Packaging

Machinery
Arthur Colton Co.
Karl Kiefer Machine Co.
Geo. G. Rodgers Co.
F. J. Stokes Machine Co.
Stokes & Smith Co.
U. S. Bottlers Machinery Co.

Tanks, Kettles & Mixing Equipment

Abbe Engineering Co.
Ertel Engineering Corp.
Metal Glass Products Co.
Pfaudler Company
F. J. Stokes Machine Co.
U. S. Bottlers Machinery Co.

Production Equipment

Abbe Engineering Co.
Ertel Engineering Corp.
Karl Kiefer Machine Co.
Pfaudler Company
U. S. Bottlers Machinery Co.

GIVAUDAN-DELAWANNA Inc.

Sends You Greetings for A
Very Merry Christmas and
A Prosperous New Year

NRA

GIVAUDAN - DELAWANNA INC.

80 FIFTH AVENUE NEW YORK, N. Y.

BRANCHES

Philadelphia, Los Angeles, Atlanta, Cincinnati, Detroit, Dallas,
Baltimore, New Orleans, Chicago, San Francisco, Montreal, Havana

For Uniform
Physical and Chemical Properties
Specify **Baker's** Cream of Tartar

Whether you use Cream of Tartar for the manufacture of Medicinal and Pharmaceutical compounds or in the preparation of food products you want definite physical uniformity and chemical purity.

The manufacture of BAKERS' Cream of Tartar (U. S. P. Powder) is held under a rigid Control system similar to that used in the making of Baker Analyzed Chemicals—your assurance of uniformity far better than the usual run of Bulk Chemicals.

May we submit samples and quote on your requirements?

J. T. BAKER CHEMICAL CO.
Phillipsburg, New Jersey

New York
420 Lexington Ave.

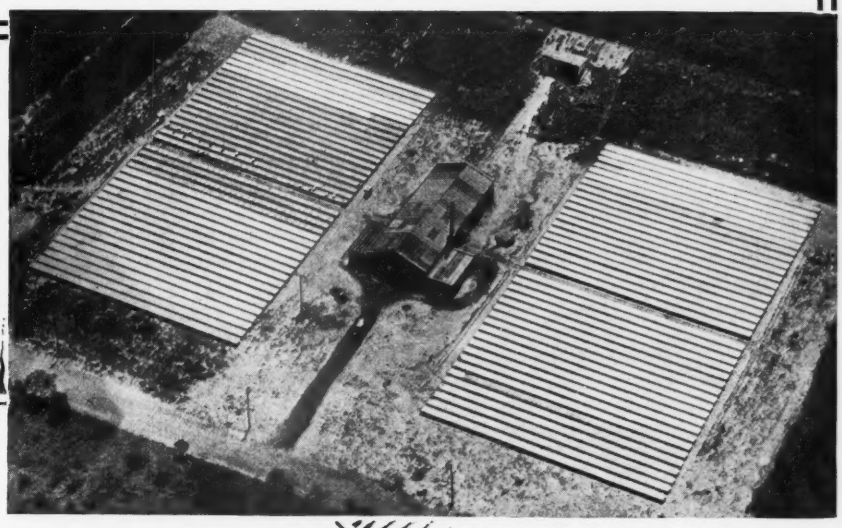
Philadelphia
220 S. 16th St.

Chicago
624 S. Michigan Blvd.

MANUFACTURERS OF
"Baker's Analyzed"
C. P. CHEMICALS AND ACIDS

KOSTER KEUNEN

Beeswax guaranteed 100% sunbleached without any chemicals. Visit our bleacheries and convince yourself.



SUNBLEACHED BEESWAX

At Sayville, Long Island, where sunlight conditions are ideal, we are now refining the same fine quality beeswax which the home plant at Aalst, Holland, has made famous for 80 years.

Critically selected crude, ideal conditions for bleaching, more than forty years direct experience in sunbleaching beeswax by the resident American director produce a superfine beeswax ideally suited for cosmetics.

May we send samples and quote prices in any quantity?

KOSTER KEUNEN

SUNBLEACHED and YELLOW BEESWAX

Sayville (Long Island) New York

Represented in New York and New England by

Wallace A. Bush Chemical Corp.
300 Fourth Ave., New York, N. Y
Phone: ALgonquin 4-2177

Represented in the Middle West by

Walter H. Jelly & Co., Inc.
412-420 N. Western Ave.
Chicago, Ill.

Get right to the Consumer

with Samples Packaged in Kimble Vials

The ideal containers for sampling and packaging

are Kimble Automatic-Machine-Made Vials. It is remarkable how nationally prominent leaders in the drug, pharmaceutical, toiletry, food and other diversified fields have turned to Kimble Vials for new sales appeal, new sampling ideas and new packaging themes. They have discovered that there is no surer way to establish new contacts and develop actual sales than to place their products directly in their prospects' hands as vial-packaged samples.

Kimble Vials show off their contents to the best advantage. They are miniature show-windows which radiate cleanliness, purity and quality. Being thoroughly retempered, they are sturdy enough to withstand rough handling, yet they are so light in weight that postage and shipping charges are cut to the minimum. Their colorful caps or closures — available in a wide variety of applications — give them front row prestige on the dealers' shelves.

Before you decide on your next sampling campaign— before you choose any type of package for your new or old products — consult with Kimble. Their ideas on modern packaging methods will be a revelation to you.

KIMBLE GLASS CO.
VINELAND, N. J.
NEW YORK • PHILADELPHIA • BOSTON • CHICAGO • DETROIT

"SO I'M TO PLAY THAT GAME, AM I? NOW, LISTEN TO ME, YOU — —"

Poor Mr. Wampum! Blood pressure way up again! That bunch of salesmen of his have got him breathing hard and seeing red. It's the same old story all over... they claim competition is so tough that they cannot do a thing unless he brings his prices down to meet everybody else's. One misguided young man had the temerity to suggest that Mr. Wampum could easily get away with cheaper ingredients and a cheaper container. Which is what touched off the explosion.

"Never," shouts he, "while I am running this business will the quality of our products be reduced one jot or tittle" (whatever that is).

"Nor," he continued, "will I ever consent to a cheaper container or a cheaper closure, etc., etc., etc."

As to the closure especially, Anchor quite agrees with Mr. Wampum. He *would* be most foolish to impair the appearance of his package or to jeopardize good will by using a less efficient closure that might not give FULL protection at all times...no matter what its cost. Such a procedure would be more than shortsighted; it would actually cut the ground away from under his salesmen's feet.

That's why Anchor, in every recommendation on particular products, always specifies a type of closure with an extra margin of safety on the side of protection.

★ ★ ★

ANCHOR CAP AND CLOSURE CORPORATION

Long Island City, N. Y. Toronto, Canada

BRANCHES IN ALL PRINCIPAL CITIES

FROM TINY *Vial* TO HUSKY JAR

Some packagers, while realizing that Anchor Molded Caps will improve their packages, still feel that their cost is prohibitive. Yet actually, there is hardly a size or shape of vial, bottle or jar to which they will not give added sales value that will more than offset the slight difference in initial cost.

There is hardly a package whose appearance they will not enhance. There is hardly a product in the drug, cosmetic or proprietary lines for which they are not suitable. And for that matter, the same is true of chemicals, barber supplies, polishes, disinfectants and scores of other specialties.

More important than appearance, even, is the unusual sealing efficiency of these uniquely designed caps. Are you acquainted with their mechanical features, their liner retaining ledge and liner recess for example, and what they mean in product protection, production efficiency and the prevention of false seals? Are you familiar with their specially designed thread, their wedge top construction, and the other features that make them better seals? Do you know that these caps will not be corroded by contact with your products? If you are not familiar with these caps it will pay you to investigate.

Anchor

MOLDED CAPS ADD *Attractiveness* TO ANY PACKAGE

● *We have prepared a book describing in detail the various types of Anchor Molded Caps, their features of construction and why they do a better sealing job. Its information may prove of real value to you. Send for your copy today.*

JANUARY

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FEBRUARY

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ANCHOR CONSUMER APPROVED CLOSURES FOR EVERY PACKING NEED

JULY

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OCTOBER

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NOVEMBER

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DECEMBER

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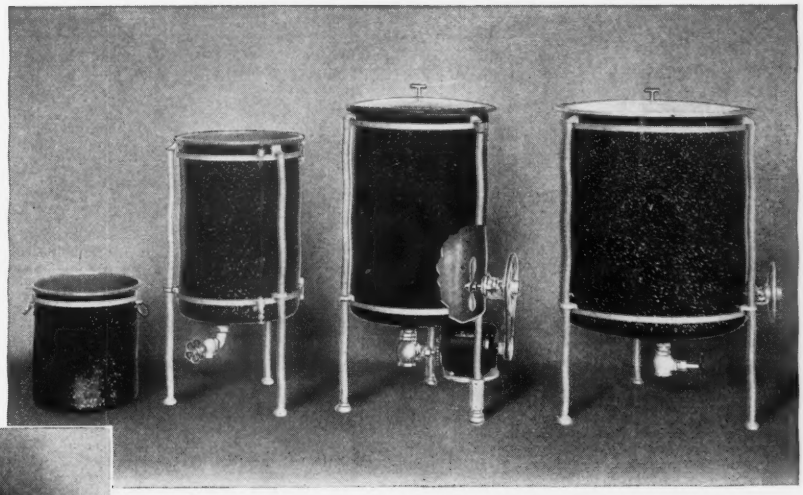
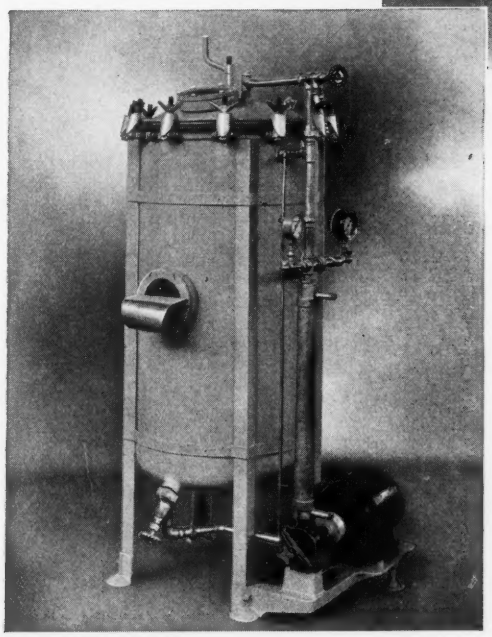
23/30	24/31	25	26	27	28	29

ACID RESISTING...CORROSION PROOF

Sanitary and Durable





The Pfaudler Pre-Vak Jr. Percolator incorporates the exclusive Pfaudler pressure-vacuum principle, which eliminates "channeling" and allows maximum extraction. Reduces percolation time from days to a few hours. Eliminates metallic flavor. Sanitary—easy-to-clean. Simple—convenient—low-priced.

THE sparkling purity of the chemically inert Pfaudler glass enamel ends all worries over contamination, corrosion, poor flavor, etc. For pharmaceuticals, biologicals, proprietary medicines, perfumes, essential oils, mouth washes, etc., Pfaudler glass-lined equipment is built to a quality standard in keeping with your finest and most delicate product.

Pfaudler's Junior Series of mixers and storage tanks (5 to 100 gals.) shown above enables you to apply its many advantages to small scale production at a modest outlay. Can be used for a variety of products. (Large equipment, up to 10,000 gallons is available, of course.)

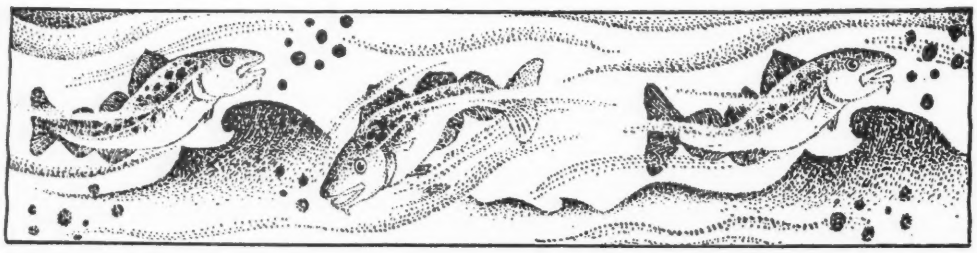
Any size container may be had with or without legs, silver plated bronze bushing outlet, silver-plated bronze globe valve or ground key spigot, one-piece clamped glass-lined steel cover (which makes container air-tight) and gauge glasses. A motor-driven agitator may be had on any container.

Send for Bulletin No. 741.

THE PFAUDLER CO., 1509 GAS & ELECTRIC BUILDING, ROCHESTER, N. Y.
FACTORIES at ROCHESTER, N. Y. and ELYRIA, OHIO
Branch Offices at 8 West 40th St., New York City, 1442 Conway Building, Chicago, Ill., 1228 Commercial Trust Building, Philadelphia, Pa., Pfaudler Sales Co., 122 New Montgomery St., San Francisco, California.

Pfaudler

GLASS ★ LINED STEEL Pfaudler EQUIPMENT



THERE IS NO SUBSTITUTE FOR COD LIVER OIL!

There is no safe, effective substitute for cod liver oil. Scientific research, clinical and dietetic experience are continually proving that.

Yet the records are filled with products introduced with much acclaim for their high vitamin potency, which quietly disappear after a few months use.

For generations Norwegian Cod Liver Oil has been used because experience proved its value. The discovery of Vitamins A and D and their high potency in Norwegian Cod Liver Oil gave great impetus to the use of this natural oil in correcting vitamin deficiencies.

Since then world wide research has confirmed experience in showing that Norwegian Cod Liver Oil, in addition to containing these natural vitamins in sufficient proportions, is also a superior carrier in which the vitamins exist in ideal proportions.

Norwegian Cod Liver Oil is world famous for its supreme quality.

Inspected and under direct supervision of the Norwegian State, you are sure of high, uniform quality when you bottle Norwegian Cod Liver Oil.

Norwegian Cod Liver Oil

MUSK AMBRE

combines the true animal odor of Civette, Ambergris and Musk Tonquin. A fixative for powders, perfumes and toilet waters . . . . . Send for sample today.

ARABELLE . . . Quite different from the ordinary odor. It is a light, fragrant, French floral type for use in perfumes and toilet water. Send for sample.

• • •

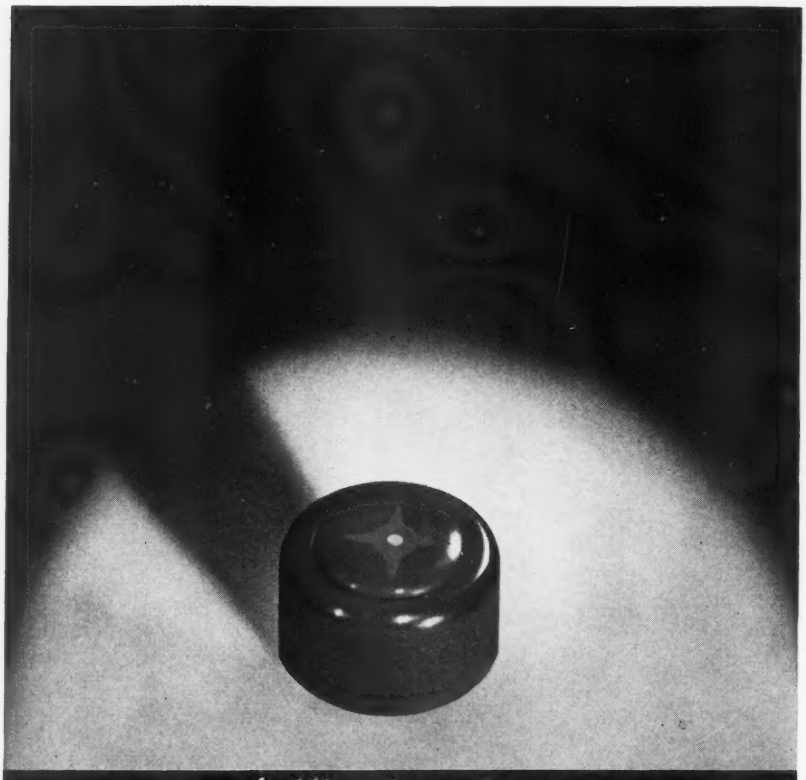
E. I. DU PONT DE NEMOURS & COMPANY, INC.

Organic Chemicals Department, Fine Chemicals Division, Wilmington, Delaware

DUPONT AROMATICS

NOW

. . . a new idea in molded cap decoration



THE *medallion type* ARTMOLD CAP

YOUR OWN DESIGN IN FULL COLOR ON THE INSET MEDALLION

ANOTHER example of Armstrong's leadership in closure design! Now, for the first time, you can have your own private design, trade-mark, or monogram *in full color* on molded plastic caps—Armstrong's Artmolds with inset medallions. These caps can be distinctively and individually yours, just like the labels on your containers. Name your sizes and send us your design and we will submit a color sketch of *your* Medallion Type Artmold. Of course, these luxurious caps are higher in price than ordinary molded caps. You'll agree they are *worth* more. For full details and samples, write Armstrong Cork & Insulation Co., Closure Division, 913 Arch St., Lancaster, Penna.

Armstrong's ARTMOLD CAPS

1/3 OF YOUR MARKET

The best Christmas gift you could receive would be your full share of the great rural American market in 1934.

The farm woman buys the drugs and cosmetics for ten million homes.

Gigantic re-adjustments are now in process to increase her purchasing power.

She represents a third of your market. You can get her trade only by going after it.

One magazine, and one magazine only, is published exclusively for her.

THE
FARMER'S WIFE
Webb Publishing Company
NEW YORK SAINT PAUL CHICAGO

The makers of these products are cultivating this great market through The Farmer's Wife: LISTERINE • MENTHOLATUM LUX TOILET SOAP • JOHNSON & JOHNSON BABY POWDER • BLUE-JAY • VASELINE • PALMOLIVE SOAP JONTEEL FACE POWDER • VICKS VAPO RUB • HINDS HONEY AND ALMOND CREAM

DECEMBER SUGGESTIONS

Timely are these chemicals used in respiratory disorders:

- Acetphenetidin U.S.P.Powd.
- Acid Acetylsalicylic U.S.P. Powd.
- Amidopyrine U.S.P. Cryst.
- Ammonium Bromide U.S.P.
- Ammonium Chloride U.S.P. Gran.
- Caffeine Citrated U.S.P.
- Codeine Salts
- Creosote U.S.P.
- Guaiacol Liquid U.S.P.
- Morphine Sulphate U.S.P.
- Potassium Acetate U.S.P.
- Potassium Bromide U.S.P. Gran.
- Quinine Salts
- Salol U.S.P.
- Sodium Salicylate U.S.P. Powd.
- Terpin Hydrate U.S.P. Cryst.

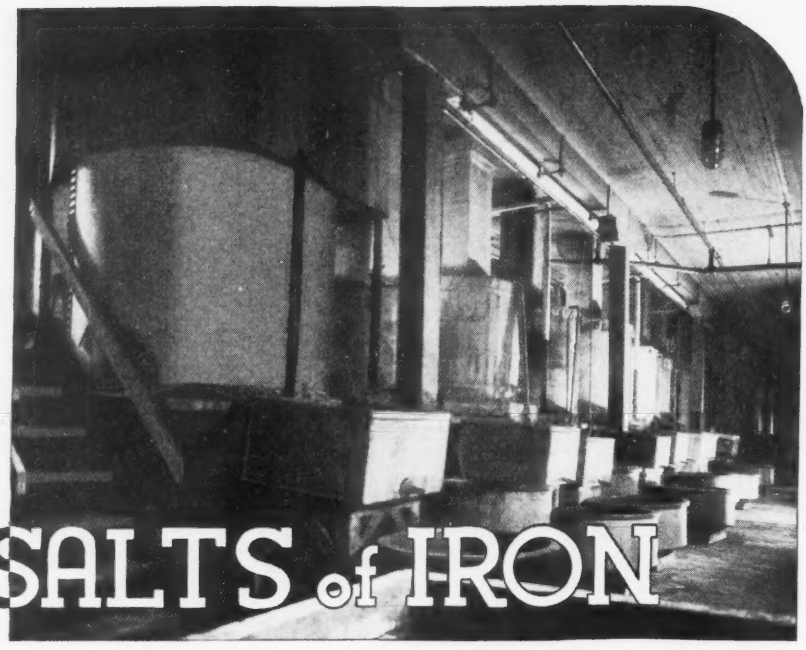
•

Over 1500 fine chemicals are made by Mallinckrodt. A complete list showing grades and forms will be sent on request.

•

ANALYTICAL REAGENTS

Most all items for which the Committee on Analytical Reagents of the American Chemical Society have set standards are in the Mallinckrodt line. A complete list showing maximum limits of impurities sent on request.



Mallinckrodt Iron Salts, manufactured to meet every required standard, receive the same care and accurate control of quality as any of the most costly items. In the group are items for medicinal, dyeing, engraving and other manufacturing purposes.

A few of the eighty odd Mallinckrodt Iron Salts

- Iron Carbonate Saccharated U.S.P.
- Iron Chloride Soln. U.S.P.
- Iron Chloride Tincture U.S.P.
- Iron Chloride Citro Tincture N.F.
- Iron Glycerophosphate N.F. Powd. & Scales
- Iron Hypophosphate N.F. (Ferric)
- Iron Oxide Saccharated Soluble N.F.
- Iron Phosphate U.S.P. Pearls, Scales & Powd.
- Iron Pyrophosphate N.F. Pearls, Scales & Powd.
- Iron Reduced U.S.P.
- Iron & Ammonium Citrate U.S.P. Brown Pearls, Scales & Powd.
- Iron & Quinine Citrate (Ferric) Soluble U.S.P. IX Pearls & Scales

CHEMICAL WORKS
ST. LOUIS *Mallinckrodt* NEW YORK

Makers of Fine Medicinal Chemicals

ST. LOUIS · CHICAGO · PHILADELPHIA · TORONTO · MONTREAL · NEW YORK

The Cavers' Rebuttal

ASIDE from the testimony of Dr. J. H. Beal for the profession of pharmacy, the hearing before the Senate subcommittee on the proposed Federal Food and Drugs Act offered nothing so vital to the future of the bill as the closing remarks of Professor of Law (Duke University) David F. Cavers.

PROFESSOR CAVERS is generally believed to have been the man who actually wrote the bill. He only claims to have been one of a group who prepared the bill. However, it is quite clear from the fact that he sat quietly alongside of Chief Campbell all during the hearing, and then offered the only rebuttal for the Administration that he was probably a very important member of the group, and that he probably supplied the language for the bill.

BUT to hear Mr. Cavers say,—after listening to the damaging testimony on the wording of the bill, and after hearing both Mr. Campbell and Chairman Copeland commit themselves to amendments,—that the broad grants of power are necessary, and that there are bound to be miscarriages of justice under any bill, is, to say the least, disquieting. Not only does it seem that Professor Cavers is purely theoretical in his approach to control of the problem, but it also appears that he is quite ignorant of the facts which preceded the introduction of this bill.

MR. CAVERS statement that if one-quarter of the energy expended in opposing the bill had been used in aiding in preparation of a proper bill, the hearing would not have been held, is in direct contradiction to the facts. Mr. Cavers has only to ask Walter G. Campbell regarding the efforts of the various branches of the industry to hold a conference with the Department in an effort to draft an equitable measure to open his eyes just a little.

TUGWELL BILL

PERTINENT FACTS

Every speaker in opposition to the bill approves its purpose and admits that abuses exist, objecting only to the method proposed to correct the abuses.

■

Dr. J. H. Beal carries the fight for retail and manufacturing pharmacy as chairman of a committee of the National Drug Trade Conference which seeks to aid in proper amendment of the existing bill adequately to control advertising and other abuses.

■

American Drug Manufacturers' Association, American Medical Association merely submit briefs.

■

Senator Copeland and Walter G. Campbell admit necessity for amending the Tugwell Bill.

■

Senator McNary strongly objects to the fact that the Bill assumes a man is guilty and throws the burden of proof upon him and not on the Government as is done in all other law.

■

Professor of Law (Duke University) supposed writer of the Tugwell Bill defends Bill against critics at close of hearing, claiming that broad powers made possible exemptions to industry. He claimed that if one-quarter of the energy expended in opposing the bill had been expended in aiding in formulating the bill, no hearing would have been necessary. Hugo Mock, counsel for A. M. T. A.

Under the chairmanship of Senator Royal S. Copeland, (N. Y.) assisted by the other members of the subcommittee of the Senate Committee on Commerce, Senators McNary and Caraway, the hearing on the proposed Federal Food and Drugs Act opened on December 7 before a gathering of about 400 manufacturers of drugs, cosmetics, and foods, as well as growers of all kinds of fruits and vegetables, publishers and advertising men, and consumers.

First to speak was Secretary of Agriculture Wallace who merely read a prepared statement to the effect that he personally endorsed the bill although he admitted that he was not prepared to discuss the detailed provisions and that he must leave that responsibility to the officials of the Food and Drug Administration.

Following Mr. Wallace's statement, Senator Copeland gave the hearing over to Walter G. Campbell, Chief of the Food and Drug Administration, who presented the case of the Department of Agriculture in favor of the bill.

With the opening remark that the Department would for sentimental reasons rather have the present bill amended, but at the same time indicating the futility of such an attempt, Mr. Campbell proceeded step by step, using exhibits from the famous "Chamber of Horrors" to illustrate his point.

He defended the extension of the bill to cover substances intended to alter the structure of the body for the reason that obesity may not be considered a disease and it is desirable to exert control over obesity remedies.

In defense of Section 8 of the bill, Mr. Campbell exhibited B & M Remedy showing the 1931 labels and the 1933 labels, describing the product as originally a horse liniment and expressing the desire that it could still be restricted to horses. He told of the great difficulty of getting the B & M label changed. Next he exhibited Banbar, a remedy for diabetes which he said was horsetail weed. Under the present law the Government lost the case when they attempted to stop this labeling because ignorance of the fact that the remedy is useless now constitutes an adequate defense.

In defense of Section 4 of the bill covering adulteration of drugs, Mr. Campbell exhibited Radio-Thor, which he described as a particularly dangerous preparation of the type which cannot readily be checked under the present act.

GOES TO BAT

Mr. Campbell defended the inclusion of cosmetics in the act by the exhibition of Koremlu and Lash Lure, stating that the latter preparation is still being offered for sale and the Government is powerless to stop it.

Following the noon recess, Mr. Campbell introduced Professor Yandell Henderson, of Yale University who supported the bill. He mentioned the fact there has recently been discovered a new product for curing obesity, namely dinitrophenol. Overdoses of this product are dangerous, he said, and if the statement is made on the label that not more than a certain amount should be taken, the user will probably pay no attention to this but will increase the dose to obtain quicker effects. Overdoses will raise the temperature very rapidly and will result in death in 24 hours. Professor Henderson suggested that polishes and cleansers for the household be included in the bill, indicating the danger which might arise from the use of a silver polish containing potassium cyanide.

Professor Henderson also wanted Section 8 (c) covering the statement of alcohol content on the label, extended to include alcoholic beverages.

Dr. Haven Emerson, of Columbia University, and President of the Public Health Association of the New York Academy of Medicine, was the next witness for Mr. Campbell. He proposed that where the term "general medical opinion" appeared in the bill, it be preceded by the word "contemporary." He also suggested that Section 22 covering voluntary inspection service he extended to provide for a government laboratory to try out new drugs discovered by manufacturers before they are tried out on the public, which now is the laboratory.

W. C. Roberts, of the American Federation of Labor, also appeared as a witness for Mr. Campbell, reading resolution in favor of the principles of the bill.

When Mr. Campbell resumed his testimony, he took up Section 8 (e) on quantitative disclosure on the labels of proprietary medicines. This was necessary, he said to make self-medication safe as allergic patients should be able to know in advance if a medicine contains any of the ingredients to which they react unfavorably. With regard to disclosure of secrets to competitors, he stated that by analysis any competitor could now determine the composition of any medicine if so chose. Mr. Campbell exhibited Dr. Kilmer's Swamp-Root which now carries a qualitative formula on the label, and he also exhibited another product which did not disclose

HUMOR IN HEARING

Senator Copeland asks witness for Confectionery Manufacturers to be sure and leave the exhibit of a jar of candy, whereupon the witness produces four five pound boxes of candy for the use of the committee and the press.

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Dr. J. H. Beal, upon being accused by Senator Copeland of being quite rough on the bill, says that the Department officials pack horseshoes in their gloves when they are dealing with representatives of pharmacy. Copeland's reply: "You're not so bad in that way yourself, Doctor."

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Hugo Mock, Counsel for the A. M. T. A., says the Government would come into court with unclean hands in advertising control, citing the recruiting advertising entitled, "Join the Navy and See the World," which never shows a gob scrubbing the deck.

■

While counsel for a proprietary medicine association was talking Senator Copeland passed on the following remark which he attributed to a reporter: "The decision was upheld, but the patient died."

■

Clinton Robb, counsel for U. M. M. A., said that requirement for the statement on a label of the fact that the medicine is not a cure, was like requiring over the door of a physician's office a sign reading "I Cannot Cure."

■

Dr. Beal says that the difference between Latin names and English names is $2.50. He further states that the results of a drug on a guinea pig proves just how the drug will act on a guinea pig.

the ingredients on the domestic package, but did disclose them on the export package since such disclosure is required in some countries to which the product is exported.

Upon question by Senator Copeland, Mr. Campbell stated that filing of the formula would not be sufficient since it would merely aid in enforcement by informing the Department regarding incompatibilities and poisons, but would not greatly aid the public. As an example of a product supporting his contention, Mr. Campbell exhibited Dr. Hermat's Hay Fever and Asthma Remedy which he said contained potassium iodide which is contra-indicated in cases of tuberculosis. Under these circumstances a patient suffering from both tuberculosis and asthma would really harm himself by taking this product for the treatment of asthma.

In defense of the provisions of the act to control false advertising, Mr. Campbell stated that everyone recognized trade puffs as legitimate, but such statement as tend to deceive the public should be prohibited. He gave his opinion that if advertising were made more honest, more people will read them with a resulting increase in business. Following this increase in the effectiveness of advertising, the value of advertising space would increase.

With reference to Section 17 (d) under penalties Mr. Campbell suggested an amendment by making the paragraph read that a publisher shall not be liable for false advertising *unless* on the request of an officer or employee designated by the Secretary, he *refuses to* furnish the name and post office address of the person who contracted for or caused him to disseminate such advertisement.

Senator McNary questioned Mr. Campbell regarding Sec. 9 (a) regarding the "misleading impression" which an advertisement might create Mr. Campbell answered that it meant the impression created in reasonably intelligent people, and that Department would decide the question subject to review by the courts.

Senator Copeland suggested that the part of Section 16 (a) on seizures of products imminently dangerous to health should be amended by the addition of the words "and in such cases only" immediately following the words "imminently dangerous to health."

Mr. Campbell stated that he held no brief for Section 22 which provides for voluntary inspection service.

Mr. Campbell suggested that the final sentence of Section 23 (c) be changed to read: *In formulating regulations* the findings of fact by the Secretary shall be conclusive if in accordance with law.

Following the close of Mr. Campbell's testimony, Carson P. Frailey, President of the National Drug Trade Conference read the following resolution passed by the Conference at its annual meeting on December 5:

Whereas, the development of advertising methods since the adoption of the Federal Food and Drugs Act of June 30th, 1906, has resulted in abuses which that act now fails to adequately control, and

Whereas, the elimination of the false and fraudulent advertising of medicinal products is essential to the proper protection of the public health, the safe-guarding of which is recognized by this organization as paramount to commercial or other considerations, Therefore, Be It

Resolved, by the National Drug Trade Conference in annual convention assembled, that a committee be appointed by the Chair to prepare one or more bills to provide for such amendment of the Federal Food and Drugs Act and if necessary for such amendments of other Federal Statutes as will make them completely effective for the control of false or fraudulent advertising of medicinal products, whether disseminated in connection with such medicinal products or otherwise, and also that the said committee shall draft such other amendments to existing Federal Statutes as in its opinion may be necessary to prevent the distribution of dangerous cosmetic preparations in interstate commerce and also to prevent the false or fraudulent advertising of such cosmetics preparations, and Be It Further

Resolved, that said committee be authorized to offer such bill or bills for enactment by the United States Congress either as original bills or as it substitutes for measures now pending in the Congress, and Be It Also

Resolved that said committee be authorized to tender to any representatives of the Federal Government the assistance and co-operation of the National Drug Trade Conference and of its individual members in the preparation of amendments to any of the laws relating to the control and regulation of the advertising and distribution of drugs, medicines and cosmetics in interstate commerce.

Following the reading of this resolution, Mr. Frailey introduced Professor J. H. Beal, Professor of Pharmacy of Northwestern University, who had been appointed chairman of the committee provided for in the resolution.

Dr. Beal started out with the premise that the present act can and should be made effective to control the abuses which exist. He said that he had tried for a long time to try to find ways of amending the proposed bill but he was unable to do it, perhaps some could show him how.

Taking the bill up section by section Dr. Beal indicated the unfortunate words and form which had been used which made adoption of the bill as it stands impossible from every viewpoint. Under the definition of devices he showed how this must include not only bandages, trusses, eyeglasses, etc., but also check reins on horses, dog collars, dog muzzles, and in fact any device used on man or animal.

Under Section 4 (a) which deems an article adulterated if it is or may be dangerous to health, Dr. Beal said that the conditions must be defined in the regulations to care for allergic cases such as a case of dermatitis resulting from the use of an ephedrine inhalant by a person with a super-sensitivity toward this drug.

A drug must not be deemed adulterated, according to Dr. Beal, if it fails to follow the formula of the U.S.P. or N.F. since these formulas are worked out in small lots and are not always adaptable to large scale operation.

The provision in Section 5 (b) that the Secretary shall have the power to provide new tests or methods of assay when, in his opinion, the official tests are inadequate, is a dangerous provision, Dr. Beal said, as it

(*Continued on page 574*)

PROTECTING YOUR TRADE-MARK

In this article Lenore B. Stoughton continues to tell the methods which should be followed by every manufacturer if they are to be certain to retain the full interest in their trade-marks.

REGISTRATION of a trade-mark is an important step in its protection and preservation. While not always essential, it is so highly desirable that its many advantages deserve careful consideration by everyone whose trade-mark is or may be valuable to him.

Because registration under the Federal Trade-mark Act is effected through the United States Patent Office, it is sometimes confused with letters patent and thought to have the same effect. The granting of a patent creates a new right—a monopoly for a limited term. The nature of a trade-mark registration is entirely different. The mere granting of registration creates no new rights in a mark. It puts on record a claim of existing rights. It cannot be obtained unless those rights have already been created through use of the mark. When the use from which the rights spring ceases, the registration loses its validity and force and is subject to cancellation and removal from the record.

The scope of the Federal Trade-mark Act is limited to marks used in interstate commerce. The basis of the Act lies in the power of Congress to regulate matters relating to interstate and foreign commerce. Its provisions, therefore, cannot be resorted to for protection of a mark used only within one state. There are provisions in the various states for local registration, but their usefulness is limited and when we speak of registration generally we mean registration in the United States Patent Office under the Federal Act.

The first essential to registration is use of the mark in interstate commerce. The application for registration must state the date of such first use. To establish that date as early as possible, the applicant often arranges a few sales in adjoining states as soon as labels or packages bearing the mark are available, without waiting until his goods are ready for general distribution. These first sales should, of course, be followed as quickly as possible by other sales in the general course of business.

In connection with the sales which establish the date of first use in interstate commerce, we cannot overstress the importance of preserving every scrap of evidence relating to them: orders, copies of invoices, correspondence relating to the sales, shipping records, and anything else of that nature. Sometimes manufacturers even have some of the packages in the first shipment stamped by the recipient as to date and place of receipt and returned for the manufacturer to preserve as evidence.

It may happen that the first sale of goods bearing the mark is not an interstate sale. In that case evidence of the first sale should be preserved just as carefully, and may prove equally as valuable in other respects, as the evidence of the first interstate sale.

An application for registration must be made by the owner of the mark. It must describe the particular goods to which the mark is applied, and must be accompanied by five specimen labels or cartons showing the mark as it is actually used upon the goods.

In connection with the labels, it should be pointed out that *after registration is granted*, the labels should carry in conjunction with the mark the notation "Registered in the United States Patent Office," or the abbreviated form, "Reg. U. S. Pat. Off." This notation is required by the Act and constitutes notice to the public that the trade-mark is registered. Its practical importance lies in the fact that, to recover damages in a suit for infringement of the mark the plaintiff must prove that the notation has been used with the mark or that actual notice of the registration has been given to the defendant. If the notation is used, the defendant has constructive notice of the registration and damages are considered to have accrued from the beginning of the infringement. Otherwise actual notice must be given to the defendant, and damages accrue only from the date of the notice.

This notation must not be put on new labels in anticipation of registration. The Patent Office has refused to accept, as specimens accompanying the application, labels bearing the notation, on the ground that at the time the application is filed the mark is not yet registered and therefore the statement is untrue. It would be inadvisable from other standpoints to carry such an untrue statement, even though the application was

actually pending in the Patent Office. At present from five to six months is required for an application to be examined, approved, published, and registration granted; and if opposition is filed or any amendment is required, it takes longer. So usually the first few runs of labels are without the trade-mark notation, and that is inserted only when notice has come from the Patent Office that the certificate will issue. Of course existing labels without the notation may also be used by even after the registration has been granted.

When the Examiner in the Patent Office is satisfied with the form of the application and finds nothing which he considers a bar to registration, he passes the proposed mark for publication in the Official Gazette. This is constructive notice to the public of the applicant's claim to the mark. At any time within thirty days after such publication anyone "who believes that he would be damaged by the registration" may file an opposition, setting forth the grounds on which he opposes.

If no opposition is filed, the registration may be granted and the certificate issued. In case of opposition, each party is given an opportunity to substantiate his claims by proof of facts and argument of law. The conflicting rights will then be determined and the registration granted or refused accordingly.

Registration, when granted, runs for a term of twenty years. It is renewable for like periods at the request of the registrant and upon his declaration that he is still the owner of the mark and has not abandoned it. A registration may be assigned in connection with a transfer of the business and good will to which it appertains, and the assignee succeeds to all the rights of the original registrant, including the right to apply for renewal.

A registration is not in itself conclusive of rights of third parties, however, and it is not inviolate from attack. Its validity and force may be questioned at any time and it may be ordered cancelled on due proof that another person has a prior right in the mark or that the registrant has lost his exclusive rights in it or has abandoned his use.

Some of the advantages of registering your mark arise from the procedure of registration itself. The mark is examined in the Patent Office and the applicant is informed if it is not a proper trade-mark within the meaning of the Act. Thus he will be advised if it falls within the prohibited classes of marks, or is considered descriptive, or for some other reason is not a mark which any one person may appropriate to the exclusion of everyone else. If he is applying for registration promptly after his first use, it gives him an opportunity to correct the defect or, if necessary, to adopt a new mark before too much good will has been built up around the old one.

The examination in the Office and the publication in the Official Gazette may also bring to light conflicting claims to rights in the mark, or earlier use of that or a similar mark by someone else. The discovery of such conflicts during the course of an application often enables an applicant to come to a satisfactory solution of them without much expense, by agreement as to use or sometimes by a slight change in his mark. He may thus avoid a later expensive and uncertain suit over the same point, and his general position is strengthened.

The existence of a registration is in itself *prima facie* proof of the adoption, use, and validity of the mark; and the owner need not go beyond the certificate of registration to prove those elements of his rights unless an issue is raised as to the truth of facts stated in the certificate. If such an issue is raised, the owner may then, and only then, be put to definite proof of the facts. Thus in a suit for infringement, the owner of the mark first proves the registration and the continued use of the mark by him. He is obliged to prove the detailed facts of its adoption and first use only when his opponent contends, for instance, that he did not actually use the mark at the date set forth in the certificate.

There are definite advantages from registration when and if it becomes necessary to bring suit against an infringer. Suit on a trade-mark registered under the Act may be brought in a Federal court. Because of simple procedure, greater familiarity of the court with that type of case, and often more expeditious trial, the Federal court is usually found a more satisfactory tribunal than available state courts.

Moreover, the remedies provided by the Act are comprehensive and effective, and in some respects go far beyond the relief which could be afforded by a state court. The Federal court may award as damages any sum up to three times the sum of actual damages proved. An injunction in such a suit is not limited to the venue where it issued, but may be served and enforced anywhere in the United States, whereas the authority of a state court does not extend beyond that state's boundaries. And upon issuance of an injunction against the infringer, the court may order that "all labels, signs, prints, packages, wrappers or receptacles in the possession of the defendant" bearing the infringing mark, shall be delivered up to the court and destroyed.

For those who have a world market for their goods, registration is usually not only desirable but essential. Many countries require local registration of a mark before any protection will be accorded against infringement or unfair competition, and often the foreign registration will be granted only on proof that the mark is already registered in its home country.

There is one special protection for a registered mark, which has a great deal of meaning to importers, drug manufacturers, and dealers in cosmetics and perfumes. Under Section 27 of the Act a certificate of registration may be filed with the Department of the Treasury by the owner of the mark, and thereafter it will be the duty of customs officials to exclude from this country any merchandise bearing a copy or simulation of that mark.

NEW MEDICINES ABROAD

Radium-Perlen—Lentil-shaped pills, each weighing 0.3 gram, consisting of sugar mixture, whose content of radioactive substance in 100 pills corresponded to 2.8 x 10^{-8} gram of radium metal (according to the alpha-ray measuring method). For neuralgia, metabolic troubles, headaches, disturbances of digestion.

Rheum—Turbid, strongly smelling liquid in flat glass bottles with metallic caps. Contains pine oil, rosemary oil, eucalyptus oil, oil of turpentine, originan. cret., ammonia liquor and spirits of camphor. Analgesic for rubbing into muscles in rheumatism, gout, sciatica, pains in limbs, lumbar rheumatism, pains in neck, teeth and ears, sprains and strains, skin itchings and insect bites. Chemische Laboratorium Dr. Adolf Ebel, Wiesbaden, Germany.

Rheuma-Sieg—Brown salve, consisting essentially of petrolatum, lanolin, water, oil of wintergreen and albumenous substances, apparently skimmed milk powder. Vegetable extracts and oil of turpentine are also present. For rheumatism, gout, sciatica, etc. Rheumazinal Werken, Neu-Finkenkrug.

Rheumatismuselixir—Sweetened extract of various parts of plants which contain considerable proportions of benzoic acid. Also contains alcohol. Very potent substances are absent. Residue on evaporation consists principally of 29.2% reducing sugar and 0.52% mineral matter. Apotheker A. Kerndls.

Rotanervin Tabletten—White tablets, containing caffeine, acetylsalicylic acid and phenacetin. For headaches, toothaches, grip, rheumatic troubles, etc. Dose:—1 to 2 tablets swallowed with water or in hot, sweet tea, directly after eating, 2 to 3 times daily. In tube containing 20 tablets. Richard Schramm, Dresden-N., Germany.

Ruwa Tabletten—Biochemical tablets consisting of lactose, which mixes well with all sorts of biochemical substances. Mineral matter content is 0.052%. Ruthmann & Co., Leipzig, Germany.

Salbei-Kamille-Inhalat "Esseff"—Liquid. Prepared from finest grade of sage and chamomile under such conditions that extract contains active ingredients of leaves in uninjured state. For inhalation in inflammations of mouth and respiratory passages, particularly in inflammations of throat, in grip and angina pectoris. In flasks containing 40 and 250 grams each. Sauerstoff-Fabrik Berlin, G.m.b.H.

Scopo-Somnacetin—Combination of somnacetin and scopolamine. Solution contains 4 cc. of somnacetin and 1 mgm. of scopolamine per ampule. Each ampule contains 5 cc. For irritations of severest kind, for preparing women for childbirth and for narcosis. Solution is injected intramuscularly. Action takes place within about 20 to 30 minutes and pasts 5 to 7 hours. Dr. R. & Dr. O. Weil, Chemische Pharmazeutische Fabrik, Frankfurt-am-Main, Germany.

Sedocalcium—Combination of equimolecular proportions of calcium bromide and calcium lactate in form of double salt with following constitution:—$CaBr_2Ca(C_3H_5O_3)_2$. White tablets. For nervous sleeplessness, disturbances of vegetative nervous system, neuratic and allergic diseases, hypertonia, vagatonia, psychasthenic conditions, reactive depression, climatic troubles, hypereroticism, onania, urticaria. Dose:—1 to 3 tablets a day normally; 2 to 3 tablets as soporific before retiring. Glass tubes containing 25 tablets. Novopin-Fabrik, Pharmacosa G.m.b.H., Berlin-Johannisthal, Germany.

Sekretin-Nordmark—Turbid, blackish liquid, which contains sekretin, which is obtained from plants (chenopodiaceae and urticaceae) by acid hydrolysis. Secretin is a substance found by Bayliss and Starling in epithelia of upper sections of intestine. This substance is given off to blood and acts directly on dissected cells of stomach and pancreas. These gland cells are stimulated thereby to secrete. For stimulation of the secretion of gastric juice in achylia gastrica, subacidity, gastrogenic diarrhoea, diseases of pancreas, loss of appetite. Flasks containing 100, 200 and 500 ccm. Nordmark Werke G.m.b.H., Hamburg, Germany.

Cortine—Liquid extract of suprarenal cortical hormone. For Addison's disease, states of prostration, such as toxic diphtheria, post-infective asthenia and physiological exhaustion. Dose:—10 to 70 cc. injected intravenously each day. Bottles containing 10 ccm. N. V. Organon, Oss, Holland.

Enterofagos—Solution of broth filtrate containing polyvalent, intestinal bacteriophages. For application of bacteriophagy in acute or chronic enteritis, colitis, entereocolitis, diarrhoea, typhoid and paratyphoid conditions, dysentery, bacillus coli infections. Dose:—2 cc. in water in morning (with fasting). In 2 cc. ampoules. Laboratoire de Biologie Medicale, Nice, France.

Pacyl—Tablets. Contain derivative of cholin substance. For maintaining tonus of smooth muscle by stimuli of parasympathetic nerves of vascular system; for hypertonia of arteriosclerotic or climacteric origin in migraine, vertigo, tinnitus. Dose:—2 tablets 3 times daily. Bottles containing 50 tablets. Chemische Fabriken Dr. Joachin Wiernich & Co., A.G.

Halibol—Halibut liver oil mixed with viosterol. Standardized to vitamin A value 600, vitamin D value

10,000 units per gram. One minim equals in vitamin potency 60 minus cod liver oil. In gelatin capsules containing 3 minims. Allen & Hamburys Ltd., London, England.

Sembol—Tablets. Combination of fresh extracts of thymus, thyroid, anterior lobe of pitutiary gland, suprarenal, orchis with addition of calcium glycerinophosphate and sodium phosphate. For male disfunctions and asthenic conditions. Dose:—one to 2 tablets 3 times daily after meals. In bottles containing 50 and 200 tablets. H. R. Napp Ltd., London, England.

Stemcol—Liquid. Contains 2 grams vinegar of squill, 0.14 gram sulfuric acid, 0.14 gram liquid extract of ipecac, 0.01 gram benzoic acid, 0.01 gram camphor oil, 0.01 gram anise oil, 0.75 gram fluid extract of wild cherry bark, 3.15 grams glycerin, 30.8 grams liquid petrolatum, 5.0 grams honey syrup, 2.5 grams syrup tolu balsam, 2.5 grams syrup of tar, 0.18 gram sodium benzoate, 0.6 gram gum tragacanth, 0.7 gram gum acacia, 0.31 gram flavoring matter and color, distilled water to 100 grams. For coughs, colds, larnygitis, bronchitis, etc. Dose:—adults one tablespoon; children, ½ to one teaspoonful every 4 hours. In 6 ounce bottles. Stemco. Ltd., London.

Xorox—Tablets. Contain standard preparation of metal—containing complex organic bodies, such as liver, spleen, stomach, and anterior lobe of pitutiary body. Used as a blood regenerator in primary and secondary anaemia, in debility following influenza and all acute infections and fevers. General tonic. Dose:—adults 2 tablespoonful 3 times daily; children, varied dose according to age. Bottles containing 40 and 200 tablets. H. R. Napp Ltd.

Calcibionat—Granules and effervescent tablets. Contain calcium-bromium lactobionate. Used as sedative and neurotonic, these properties being due to bromine ion and calcium gluconate. Used in bromide therapy. Dose:—adults, 1 to 3 tablespoonsful; children, 1-3rd. to 2-3rds. adult dose. Sandoz, London.

Insuling Ointment—Contains one international unit of insulin per gram of ointment vehicle. For opthalmic purposes; treating local lesions, trophic ulcers. In pots containing 50 grams. N. V. Organon, Oss, Holland.

Insulin Powder—Contains 10 international units of insulin per gram. For insufflation in otitis externa. In tubes containing 2 grams. Same maker.

Pernaemon Forte—Liquid. Contains concentrated non-protein fraction of mammalian liver for injection purposes. One cc. extract equals 25 grams of liver. For maintenance in pernicious anaemia. Dose:—2 ccm. per injection. In 2 ccm. ampoules, 3 and 24 in box. Same maker.

Acecolex—Paste. Contains acecoline (acetylcholin) 2% and fenchone in anhydrous vehicle. For treatment of varicose ulcers, atonic wounds, dermatoses; for the cicatrization of wounds. In tubes containing 35 and 105 grams. Laboratoires Chevetrin-Lematte, Paris, France.

Pregnyl—Tablets and solution form. Contains sex stimulating hormone obtained from urine of pregnant women. Standardized in female rat units. For menorrhagia, metorrhagia, anemorrhoea, sexual infantilism, dysmenorrhoea, threatened abortion. In tubes and ampoules. N. V. Organon, Oss, Holland.

A-Menotab—Tablets. Contain hormones of anterior lobe of pituitary body, ovary residue, corpus luteum and thyroid. For amenorrhoea, dysmenorrhoea with neuralgia and nervous prostration. Dose:—6 tablets, ½ hour before meals, 3 times daily for 3 days before period. In bottles containing 25 and 100 tablets. Parries & Byrne Ltd., London, England.

Sinechlor—Chlorine-free dietetic salt. Used in chlorine-free nutrition therapy in place of common salt. Packages containing 100 and 500 grams. Chemische Fabrik Albert Mendel A.G., Berlin-Templehof, Germany.

Stenoppressin—Clear, dark-olive colored liquid. Strong smell of peppermint oil. Contains in 100 grams 0.1 gram of g-strophanthin, 1.5 grams lobelia inflata, 0.75 gram ethyl nitrite, 8.0 grams cannastrol (selected extracted substances from canabis indica) and 2.0 grams peppermint oil. For all affections of heart and larger blood vessels combined with oppressive feeling, such as angina pectoris, stenocardia, disturbances in transfusion, changes due to shock, coronary sclerosis with muscular debility, snycopy and like. Dose:—20 to 25 drops 3 times daily after eating in water. In bottles provided with droppers holding 15 ccm. Efeka-Neopharm A.G., Hannover, Germany.

Temoebilin—Reddish-brown tablets, weighing 2 grams each. Designated as vegetable chloretic and cholagogue. Contains all the active, isolated substances of curcuma domestica in natural combination and standardized as to relative proportions of ingredients, together with fluid extracts (prepared by special process) of chamomile, peppermint and fructus carvi. Purified active substances of the drug, temoe-lawak, are converted into water-soluble form by special process and product is combined with solubilized active substances of peppermint, kummel and chamomile in form of chamilosan to form tea tablets. Tablets contain 0.1 gram of purified active substances of temoe-lawak (essential oils, camphor, color) and 0.5 gram of fluid extract of peppermint, kummel and chamomile. For liver troubles, gall bladder diseases and their consequent diseases (cholezystopathia), subacute and chronic diseases of gall bladder with or without formation of stones, icterus after gall bladder operations, meteorismus. In tubes containing 10 and 25 tablets. Chemisch-Pharmazeutische A.G. Bad Homburg, Frankfurt-am-Main, Germany.

Rheupinal—Clear yellow liquid containing free salicylic acid, camphor, potash soap, arnica, alcohol and ether. For neuralgic and rheumatic pains. Gutenberg Apotheke S. Pinkus, Breslau, Germany.

A California Avocado Grove

AVOCADO OIL IN COSMETICS

By R. N. Ball and R. F. Eaton*

THE avocado (erroneously called "alligator pear") is one of the oldest known fruits of the American continents. Botanically named "Persea Gratissima," it is a member of the Laurel family. It has been called "ahuacate," "pera d' avocat," "pera," "avocat," "aguacate," and many other names. The avocado was found thriving from Aztec Mexico, through Mayan Guatamala, to Peru of the Incas. It was pictured in the ancient Aztec writings and in 1519 Martin Fernandez de Encisco reported "pears of incomparable delicacy and flavor" which he found in South America. Needless to say the fruit is both a staple and a delicacy in the diet of these countries.

Early records indicate that avocados were first introduced to California in 1856. The United States Department of Agriculture, in 1911, sent Wilson Popenoe to explore the wilds of Mexico, Central and South America for varieties suitable for propagation in the United States. The result of his nine years search was the establishment of about a hundred varieties which grew well in Florida and California.

By years of careful budding, commercial testing, and selection the California growers, banded together in a growers' marketing organization, have established about a dozen varieties which are exceptionally high in oil content, nut-like in flavor, and rich in minerals and vitamins. There is a vast difference between these cultivated avocados and the wild, native or garden varieties.

Oil is prepared from the pears which have been scarred or blemished, so that they are not suitable for marketing. Particularly suited for oil purposes are the Fuerte, Puebla, and Mexican family varieties. These fruit contain from 15 to 30 per cent. oil in the edible fleshy portion, this being the only part used for oil extraction. The fruit is softened to the edible stage, peeled, the seed removed, the flesh sliced in thin strips, and placed on drying trays and dehydrated in an atmosphere of nitrogen at 130° Fahrenheit. Approximately 90% of the net weight of the fruit is lost in this operation. The dried slices are then ground and pressed without heat. The whole process is designed to preserve intact the vitamin A and D (oil soluble) content of the original fruit. After filtering and clarifying, the oil is deep green by transmitted light, and deep red by reflected light, presenting a flourescent appearance. The oil may be bleached to any desired degree, even to water white, but the expense is not justified, since

*Consulting Chemists for Calavo Growers of California.

most cosmetic manufacturers prefer the green oil. It lends richness and color to the products in which it is used.

It may be interesting to the chemist to compare the following constants and composition determinations of the avocado made by Eaton[1] with those made by Jamieson.[2]

CHEMICAL AND PHYSICAL CHARACTERISTICS

	25°
Specific Gravity 25°	0.921
Refractive Index 20°	1.4700
Acid Value	2.5
Saponification Value	192.6
Unsaponifiable matter (per cent.)	1.4
Iodine Number (Hanus)	94.4
Acetyl Value	9.2
Reichert-Meissl Number	1.6
Polenske	0.2
Saturated Acids (corrected) (per cent.)	7.6
Unsaturated Acids (corrected) (per cent.)	85.0
Iodine Number of Unsaturated Acids	101.2

COMPOSITION

Glycerides of:	
Oleic Acid	77.3
Linolic Acid	10.8
Myristic Acid	trace
Palmitic Acid	6.9
Stearic Acid	0.8
Arachidic Acid	trace
Unsaponifiable Matter	1.5

The keeping qualities of the oil are excellent. Jamieson reported samples kept in partially filled bottles in the laboratory for a year, with but a slight increase in free fatty acid. Samples prepared by the Fruit and Vegetable Laboratory, U.S.D.A., Los Angeles, held at 40°F. for 12 years, showed very little free acid, and gave only a slight Kreiss test for rancidity.

While the use of the oil in cosmetics is rather recent, the avocado pulp was used by women of Mexico and South America centuries ago for the beneficial effects of the oil on their complexions. Hundreds of years of such use have indicated the value of this substance as a cosmetic.

Among the properties of the oil which make it valuable as a cosmetic ingredient are the following: 1. It is one of the most penetrating oils known, rating with lanolin in its power to penetrate the skin tissue. It thus serves as a "carrier" for other valuable substances which lack penetrating power. This property makes it of value for use in tissue or nourishing creams, massage creams, all-purpose creams, massage oils (muscle oils) and other preparations where penetration and lubrication are essential. 2. Manufacturers who use Avocado oil in high grade toilet soaps attribute its superior lathering and cleansing properties to the oil. 3. Being rich in vitamins A and D (oil soluble), when properly prepared, it presents an advantage over most other vegetable or fruit oils available for cosmetic use. Weatherby[3] established the fact that avocados are a rich source of vitamins A, B, D, and E. To preserve the oil soluble vitamins of the fruit it is necessary that the oil be carefully and properly prepared. The oil has none of the objectionable odor of turtle or cod liver oils, which makes it well suited to replace these oils.

Although it may be used for cooking or as a salad oil its price makes it prohibitive for these purposes.

Avocado oil can be adopted to any standard or existing formula in which oil is an ingredient. Substitution of from one to five per cent. for equal amounts of other oils should affect a gratifying change in the finished product. Trial batches should first be made, especially if mineral oils have been supplanted by avocado oil, since the latter, in most cases, will produce a stiffer emulsion. It is suggested that the avocado oil be added after the emulsion has been formed, and at the lowest

(*Continued on page 570*)

Packing avocado pears for market

SHAVING CREAMS

A full discussion of all kinds of shaving creams together with the ingredients of each kind and the method of preparation is given in this article.

A complete line of shaving preparations would include regular shaving cream, brushless shaving cream, shaving soap in cakes or sticks, shaving powder, shaving liquids, preparatory creams and lotions, after shaving creams and lotions, after shaving powder and styptic pencils. Although such a line would satisfy every requirement the demands of the market have practically eliminated some of the preparations while others have not as yet been generally popularized.

Excepting for use in barber shops shaving powders for instance are no longer important. Shaving sticks are still being sold to a very limited extent while shaving soap in cakes almost disappeared until a few prominent firms again placed it on the market in very attractive containers. It seems unlikely, however, that dry shaving soaps will ever again obtain more than an unimportant share of the business. Preparatory creams and lotions are a more recent innovation and have not as yet been generally popularized. It would appear that such products, properly merchandized, might become very popular especially among men with tender skin who are susceptible to "shaving rash."

After shaving lotions are very popular and are sold by most of the leading manufacturers of shaving cream. After shaving powder is ordinary talcum (which always has been used by fastidious men), but the modern product includes coloring material so that the powdering is not so obvious.

At the present time the bulk of the business is divided between shaving cream and brushless shaving cream with the latter in the ascendency. Each of these important products will be treated individually in this paper.

Shaving cream is a nearly neutral mixture of potassium and sodium stearate in mother liquor. It is a soft, creamy soap possessing a high gloss or sheen owing to the light reflecting property of the laminae, characteristic of stearic acid soap. A shaving cream could be made with nothing but stearic acid, potassium hydroxide and water, but since this would be harsh and lacking in lathering properties, other materials are added to make the material conform to the requirements of the market. The cream must have a good body. It must develop a rich, creamy lather without irritation to the skin. The lather itself must be heavy enough to hold the hairs erect so that they will not give way before the razor; it must soften the hairs; it must act as a lubricant for the razor and it must not become dry too quickly. It is obvious, of course, that such a lather will have very small bubbles. Lather possessing large bubbles will be sloppy and unsatisfactory.

It is desirable that shaving cream be completely saponified and as nearly neutral as possible because the soap, when hydrolized with water during application to the face, will develop sufficient alkalinity to soften the hair. An excess of alkali when the cream is made would cause such excessive alkalinity when hydrolized that a harsh reaction on the skin would result.

Next in importance to stearic acid is coconut oil, which is used to increase the richness of the lather. The ratio of coconut oil to stearic acid ranges all the way from 1 to 9 to 1 to 2. The lower ratios are more satisfactory for average purposes, (from 5 to 10% of the complete formula), but in regions where the water is excessively hard it is desirable to increase the percentage of coconut oil.

Glycerin is the next important ingredient. It is used because it prevents rapid dehydration; it improves wetting action and it acts as a lubricant. Various authorities differ as to the value of glycerin. Some contend that it decreases lather properties; others contend that it does just the opposite. One thing is certain, however, namely that an excessive amount makes the lather too watery. It is desirable, therefore, that the percentage of glycerin used be limited to a minimum of 2½% and a maximum of 10%.

The addition of 5% of cetyl alcohol is said to make the bubbles smaller by decreasing the surface tension of the cream. Some authorities favor the inclusion of from 5 to 10% of tallow, or lard which increase the viscosity of the lather. However, the inclusion of such substances is also likely to make the lather sticky or stringy. Palm oil is also used as it makes a lustrous soap. The addition of a maximum of 2% of olive oil, sesame oil, mineral oil or lanolin will increase the lubricating action of the lather and will leave the skin soft and smooth, but such additions invariably decrease the quantity of lather, decrease its wetting action, and impair sheen.

The wetting action of the lather is improved by the addition of any of the following:

Approximately 3% of triethanolamine stearate; 3% of sodium lauryl sulphonate; 3% of lecithin and .20%

(*Continued on page 562*)

VANISHING CREAM

In this article Mr. Hall gives a most complete discussion of the ingredients and method of manufacture of this important constituent of any cosmetic line.

By J. H. Hall*

VANISHING creams are emulsions consisting of potassium stearate (or a mixture of potassium and sodium stearate), with an excess of free stearic acid, together with water and, in some instances other materials such as oil, cocoa butter and glycerin. The stearic acid is partly saponified with the alkali and the soap thus formed acts as the emulsifying agent, giving an emulsion of the oil in water type.

The consistency of a straight vanishing cream made from the following formula is governed by the amount of stearic acid neutralized (saponified), and to some extent by the nature of the alkali used:—

Vanishing Cream

Stearic Acid	25. %
Water	63.515 "
Glycerin	10. "
Potassium hydroxide	.985 "
Perfume	.5 "
	100.0 "

This formula is of a fine soft texture so popular with the buying public. It will be noted that there is 25% of stearic acid T. P. (fatty acid) and the alkali, Potassium Hydroxide (KOH), is calculated to neutralize (saponify) 20% of the stearic acid. Calculating to neutralize or saponify 20% of the acid using instead, Sodium Hydroxide (NaOH), it will be noted that a harder cream results or should the experimenter using Potassium Hydroxide (KOH) desire to saponify 30% of the stearic acid he will find the cream harder; or on the other hand saponifying 15% will give a cream that will be extremely soft.

Alkalies

To calculate the amount of any alkali needed to saponify 20% or any per cent. of each pound of stearic acid represented in a vanishing cream formula is a simple matter from the following table of Equivalent Weights.

		Equiv. Wt.
Potassium hydroxide	KOH	56
Sodium hydroxide	NaOH	40
Potassium carbonate	K_2CO_3	69
Sodium carbonate	$Na_2CO_3 10.H_2O$	53
Liquid Ammonia 100%	NH_4OH	35
Triethanolamine	$(C_2H_4OH)_3N$	132
Borax	$N_2B_4O_7 10.H_2O$	190.6

In our formula we have 25 parts or pounds of stearic acid and we wish to neutralize 20% of it or 5 pounds or parts.

To find the amount of alkali required to neutralize one pound of stearic acid:

$$\frac{\text{Equivalent wt. of alkali}}{\text{Equivalent wt. of stearic acid}} = \text{Pounds alkali}$$

Example

To find the number of pounds of alkali (KOH) required to neutralize one pound of stearic acid:

$\frac{56}{284}$ = .197 pounds of KOH for each pound of stearic acid we wish to neutralize and as five pounds is the amount we simply multiply .197 times 5 equaling .985 pounds of KOH required to neutralize 20% of the 25 pounds of stearic acid in our formula.

Stearic acid has the formula $C_{17}H_{35}COOH$ therefore the theoretical equivalent weight is 284, but in commercial practice we find this weight only theory and for precise work the actual equivalent weight should be determined by the following formula.

Determine the acid number of the fatty acid, this having been done then: 56000 ÷ acid number equals equivalent weight.

Example

Assuming we find our stearic acid to have an acid number of 220 then 56000 ÷ 220 = 254.5 or an equivalent weight 29.5 under the theoretical.

Properties of Alkalies

Of all the alkalies potassium hydroxide (KOH) heads the list. Manipulation being correct pearliness follows rapidly. Sodium hydroxide (NaOH) is also good, but makes a much harder cream.

The carbonates potassium and sodium should not be used for when they combine with stearic acid carbon dioxide (CO_2) gas is liberated and does not all escape

(Continued on page 560)

* Chief chemist, Plymouth Organic Laboratories.

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Vitamin experts have long known the injurious effect which exposure to air has on Vitamin A potency.

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READERS' QUESTIONS

Antiseptic Ointment

What would be a good antiseptic material to incorporate in an ointment for ringworm, or pus germs? Buffalo.

You may use for ringworm ammoniated mercury, phenol, or creosote. From 2 to 5% mercurial ointment is usually prescribed by physicians for this condition in children. For adults the ointment may be made up to 10%.

"Pus germs" however, cover almost the entire field of bacteria. Most of the common antiseptics like iodine, phenol, potassium permanganate, creosote and oxyquinoline sulfate will quickly dispose of staphlylococci. It would be a pretty large order to expect effective results from any one antiseptic when the pus might contain pathozenic bacteria, such as streptococci, anthrox, tubercular, or syphilis bacilli. For ordinary pus germs use formaldehyde, oxyquinoline sulfate, phenol, iodine, mercury salts, the esters of p-hydroxy-benzoic acid, potassium permanganate, etc.

Hand Lotions

We have two problems we are attempting to solve.

Problem No. 1.—involves the manufacture of a hand lotion containing tragacanth, spermaceti, beeswax, powdered castile soap, glycerin, water, sodium benzoate, borax, alcohol and perfume. This preparation develops a small ring at the bottom in about two weeks and in a month definitely separates, leaving a watery layer at the bottom of the bottle. We would like to make this a permanent stable preparation.

Problem No. 2.—involves a problem of absorption base lotion utilizing lanolin and some mineral oil. We do not wish to use any stearate soaps in this product. Los Angeles.

The percentage of preservative in the first formula is insufficient and the amount of alcohol is excessive. We recommend the substitution of a more effective preservative such as formaldehyde or parahydroxybenzoic acid ester. Reduce the amount of alcohol by 50%. It is not necessary to run this preparation through a colloid mill. Otherwise the manufacturing procedure outlined in your letter is correct. You are referred to the November issue of THE DRUG AND COSMETIC INDUSTRY, which contains a rather extensive article on hand lotions. On page 478 of the same issue a formula is given for a lanolin lotion. It is recommended that this formula be used, substituting white beeswax for the stearic acid and increasing the borax to 1%.

Trade-Marks

Will you kindly give us the following information in reference to a trade-mark?

"A" registered a trade-mark in the patent office in 1920. His product was sold in several states, but not in the state of New York. In 1925 "B" registered a mark very similar to that of "A", but only registered his mark in the state of New York where he has been selling his product ever since. Now "A" wishes to sell his product in the state of New York. Can "A" stop "B" from using "B's" trade-mark in the state of New York?—Cleveland.

This letter was referred to our trade-mark editor who writes as follows:

"It is difficult to give a general answer to cover the subscriber's question outlined in your letter. I suppose the products of "A" and "B" are similar; otherwise presumably no conflict would arise from the concurrent use of similar marks.

The law is settled that mere registration of a trade-mark does not project trade-mark rights in advance of trade. In other words, "A's" registration theoretically gives him no trade-mark rights in New York State until it has been used here. But if the mark has been used and advertised in markets so closely adjoining New York that "A" can establish that residents of New York knew his trade-mark and knew it identified his product, before "B's" use began, my own opinion is that the technical rule might not be followed. There seems to be no precedent on this, and to distinguish it from the old cases would require a very clear and strong set of facts.

Another factor is the question of good faith. If "A" can prove that "B's" mark was adopted as a definite imitation of "A's" mark and with active intent to take advantage of "A's" absence from the New York market, then a court of equity might hold that "B's" acts were wrongful and should be enjoined. If "B" can establish that he adopted his mark in good faith and in ignorance of "A's" mark, his position would be much stronger and his use could probably not be interfered with.

You will see the difficulties of giving an answer "yes" or "no" to this problem without more definite details. You may be better informed than I am about the facts. Anyway, I trust the foregoing will be sufficient to enable you to draft a reply to your subscriber. Generally speaking, the answer is that, if "B" has acted in good faith, his use of his trade-mark in New York cannot be enjoined."

Foot Deodorant

Will you please answer the following questions through the "Readers' Questions Department" of THE DRUG AND COSMETIC INDUSTRY? We are testing a foot deodorant cream, using the following formula: petrolatum 76 parts, zinc oxide 20 parts, benzoic acid 3 parts, salicylic acid ½ part. (a) Can you tell us if the addition of salicylic acid improves the formula? (b) Can this formula be used as an underarm deodorant? (c) Would a "Read" planitary motion mixer be alright to use as a mixer? (b) Is an "F. J. Stokes" ointment mill suitable for grinding this type of product?—Los Angeles.

(a) Yes. (b) No. (c) The Pfaudler multi-mixer is recommended instead. (d) Yes. Your formula strikes us as being too greasy insufficiently astringent and lacking in deodorizing properties.

Astringent Lotion

We make an astringent lotion which every one seems to like, but we have considerable trouble with it because the mixture sometimes turns black. Can you tell us what is the cause of this condition? The formula contains zinc sulpocarbolate, alum, sodium perborate, boric acid, water, glycerin, alcohol, and perfume.—Chicago.

The reaction you are getting is due to the precipitation of the zinc sulpocarbolate. It is recommended that the percentage of zinc sulpocarbolate be increased slightly and the alum and sodium perborate be omitted.

Triturate Tablets

Can you advise us as to how we can obtain some information as to the mixing of powders and molding them into triturate tablets? We would like to manufacture a line on the order of the homeopathic principle, but with a further subdivision of the particles. Information as to the trituration, binders used, molding etc., will be greatly appreciated.—Hollywood.

You are advised to communicate with F. J. Stokes Machine Co., 6112 Tabor Rd., Olny P. O., Phila. Pa., and Arthur Colton

(*Continued on page 572*)

Sturge's
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THE COMPOUNDERS' CORNER

Beauty Creams

Satisfactory beauty creams should contain waxes similar to that secreted by the sebaceous glands. Spermaceti and the sperm oil from which spermaceti is separated are indicated as suitable materials. Sperm oil penentrates the human skin far more readily than does olive oil. A mixture of Japan wax or beeswax with sperm oil is able to absorb about 50 per cent of water. Better results are obtained with mixtures of lanolin, sperm oil, and spermaceti or other esters of high moleculer weight, since they are able to absorb about 275 per cent of water.

Cosmetic Latex

Considerable interest is being manifested in the use of rubber latex for cosmetics. It is suggested that rubber latex be used as an ingredient of rolling massage creams, of clay packs and other cosmetic preparations of various character. The possibilities of this material as an emulsifier are also pointed out. One investigator has been working on rubber latex in cosmetics for three years. However, it is stated that not all types of rubber latex are suitable for cosmetic possibilities because the alkalies with which it is mixed when received in the raw state, are likely to be extremely harsh on the skin. However, a method of processing latex has been developed which utilizes preservatives of a character which are not injurious.

Astringent Skin Cream

Such a cream can be readily made with any suitable cream base and alum, tannic acid or other astringent. An example is 10 parts of patented cream base, 5 parts of neutral, anhydrous lanolin, and 3 parts of white oil, mixed together at a temperature of approximately 80° C. with one to five parts of tanic acid dissolved in 70 parts of water. Cetyl alcohol can also be used for this purpose with good results. The salve then contains 15 parts of paraffin, 10 parts of anhydrous lanolin, 60 parts of white oil, and 15 parts of cetyl alcohol. The molten mass is agitated until it congeals with a hot solution of 15 parts of alum and 15 parts of tannic acid in approximately 280 parts of water.

Powder for Hair

Powders, which are used for increasing the luster of hair, usually contain citric acid. The idea of using the citric acid is to counteract the luster-dulling effect of the alkaline shampoo. However, citric acid has fallen out of favor for this purpose, because of its highly hygroscopic properties in the package. It has been displaced by adipic acid or the hexamethylenetetramine ester of adipic acid. A suitable formula contains 60 parts of alum powder, 30 parts of pulverized tartaric acid, 10 parts of adipic acid; another contains 50 parts of pulverized tartaric acid, 40 parts of powdered adipic acid, 9 parts of hexamethylenetetramine and one part of perfume. The hexamethylenetetramine is combined first with the adipic acid to form the ester and then the tartaric acid and perfume are added.

Alcoholic Keratin for Wave Setting

According to a new process keratin is used dissolved in a mixture of alcohol and ammonia in the place of ammonia alone, since the latter preparation, while effectively setting the wave in the hair, also impairs the luster and color. The new product contains 38 grams of keratin dissolved in 227 ccm. of a 25% aqueous ammonia solution and 227 ccm. of alcohol. This solution is used in the proportion of 21 ccm. with 113 ccm. of the usual 10% aqueous ammonia solution. The product is then ready for use.

Formaldehyde Tablets

To obtain a tablet which contains a vegetable slime as well as formaldehyde, careful selection must be made of the former substance so that the most suitable is used. Marshmallow root powder has been found to be most stable and hence most suitable for this purpose. The composition contains 20 parts of paraformaldehyde, one part of menthol, 100 parts of marshmallow root, 879 parts of powdered sugar, all of which is moistened with 10 parts of stearin dissolved in 45 parts of 95% ethyl alcohol. The mass is granulated and dried. A similar composition contains 7.5 parts of paraformaldehyde, 7.5 parts of sugar, 0.5 part of orange oil, 0.5 part of peppermint oil, 0.2 part of menthol, all the ingredients being well-mixed, and then incorporated with 1,000 parts of sugar, 10 parts of citric acid, 75 parts of marshmallow root (sometimes 100 parts is used), 25 parts of talc (very finely granulated). The mixture is thoroughly mixed and then made into tablets. Quince slime is also used in making the formaldehyde tablets. This substance is almost odorless. Agar-agar solution is also useful.

A slimy but loosely constituted tablet mixture is obtained by using dry pectin powder. The latter may be used alone or in admixture with dried wheat flour in the ratio of 1:2. Also gladderwrack (fucus vesiculosus) root finely pulverized may be added in small quantity to the mixture. About 1 to 2% of carragheen moss is also useful. However, the addition of gum arabic, gum tragacanth or dextrin is useless. The trouble is that tablets which are made from mixtures containing these substances become hard in course of time and dissolve only with great difficulty making the effective ingredient, paraformaldehyde, slow to act. Only a slight pressure should be used in making these tablets in the regular tablet machines.

Ammonium Acetate Settling

Ammonium acetate solution, used for pharmaceutical purposes, has a tendency to settle out a deposit. The solution is therefore made with the addition of tartaric acid. About 5% tartaric acid is used. The liquor keeps better and has a more effective action. In making the liquor with the addition of tartaric acid, it is essential that the preparation should not be mixed with potassium acetate, as is sometimes done, because the potassium acetate will react with the tartaric acid to precipitate potassium tartrate. The ammonium acetate solution used must pass the potassium sulfate test. The addition of the latter must not make the liquor turbid nor precipitate calcium sulfate. The potassium sulfate must dissolve rapidly in the liquor and the solution must remain permanently clear.

New Salve Bases

These salve bases, which are used in making both cosmetic and pharmaceutical preparations, are mixtures of stearic alcohol and palmitic alcohol. The chief advantage claimed for these bases is stability, in contradistinction to the usual instability of bases employed for making pharmaceuticals. These alcohols do not become rancid like lard, for example in making potassium iodide ointment. The decomposition of the lard liberates free fatty acids which irritate the skin. Furthermore, stearic and palmitic alcohols are preferred to petrolatum and paraffin wax because of the comparatively, slight penetrating powers of the latter. The alcohols are perfectly neutral in reaction. Their becoming rancid is practically impossible due to the fact that saturated alcohols do not oxidize to acids under normal conditions of pressure and temperature unless they are subjected to the action of a very strong oxidizing agent. Acid number and saponification number of these alcohols is zero. They also have an antiseptic action and are disinfectants in dissolved or in dispersed form. They

The Season's Greetings

We extend the Greetings of the Holiday Season to our Friends of the Industry.

As the year draws to a close the Holiday Season affords an excellent opportunity for reflection—to measure past accomplishments and gauge future prospects. Especially in the Cosmetic Industry is it essential that sufficient time be devoted to retrospection as well as introspection.

We have always appreciated the many opportunities afforded us to suggest new ideas, the result of our past experience and constant research. The results have been mutually gratifying and we confidently believe that our type of service is such as you will find invaluable.

It has been our pleasure to continue during the year our pleasant relations with friends of long standing, and to enjoy the privilege of many new and pleasant relations. To all of these friends, and to those we hope to serve in the future, we express our very sincere Best Wishes for a Prosperous New Year.

Let us co-operate with you to make 1934 the most happy and successful of all years.

COMPAGNIE PARENTO, Inc.

CROTON-ON-HUDSON, N. Y.

NEW YORK TORONTO

penetrate the skin deeply, having a strong affinity for the latter just like cholesterin.

They must be emulsified when used in making salves. In order to obtain a good emulsion it is essential to use a substance of high surface tension, such as turkey red oil. The latter it is claimed increases the bactericidal activity of the salve as is usual with substances of high surface tension (compare soap). The mixture of alcohols (palmitic and stearic) is first melted on the water bath. The temperature must be kept below 100° C. in this melting process. The molten mass is then mixed with a corresponding quantity of water, the latter being added gradually in small proportions. The water is best heated to 60° C. before being added. The mixture is then agitated while it cools off until the emulsion attains a satiny appearance. The water contained in this product is approximately 85 to 90%. The product is neutral, homogeneous and stable of snowwhite color and gives excellent salves. The consistency of the salve base varies according to the proportion of water added.

The palmitic and stearic alcohol salve base may also be mixed with various emulsifying and other ingredients improving the appearance and other properties of the product. For example, 15 parts of ethyl alcohol, 20 to 25 parts of glycerin and 60 to 65 parts of water may be added, or 24 parts of ethyl alcohol, 8 parts of lanolin, 8 parts of glycerin and 60 parts of water, or 28 parts of ethyl alcohol, 6 parts of lanolin, 8 parts of glycerin and 66 parts of olive oil. These mixtures possess high emulsifying powers. The salve bases are highly resistant to temperature, are quickly adsorbed by the skin and leave a fine, dull film thereon. They are very suitable for making soft ointments. Perfumes which are added to these bases remain perfectly pure and unchanged during storage. Salicylic acid, boric acid, potassium iodide, zinc oxide, phenol and other medicaments can be easily worked into the cream. These medicaments are claimed to remain more stable in the new salve base than in those formerly used for this purpose. Particular mention is made of the stability of yellow oxide of mercury ointment made with the new salve base.

Sulfur Salves

Highly active sulfur salves, it is claimed, can be made with precipitated sulfur, when the latter is made into a salve paste with paraffin oil and peanut oil. The preparation contains 150 parts of precipitated sulfur, 50 parts of paraffin oil and 50 parts of peanut oil. Thereafter 20 parts of white beeswax and 20 parts of spermaceti are added, and finally 100 parts of anhydrous lanolin and 100 parts more of the peanut oil. This mixture is melted on a water bath and 60 parts of water are added. The mixture is well agitated while on the bath and the agitation is continued until cooled.

Skin Bleaching Cream

To make an effective skin bleaching cream it is essential to mix the ingredients at a low temperature. Thus a mixture is made containing 25 parts of white beeswax and 25 parts of white ceresin wax. The melting is carried out on a water bath. Then 100 parts of peanut oil are added and the mixture is allowed to cool. This mixture is then united with a solution which contains one part of sodium perborate and five parts of hydrogen peroxide (3% by weight) in 33 parts of distilled water. After the mixture has been agitated in the cold, it is perfumed. This bleaching cream must be kept away from contact from metal and it must be remembered that it is not stable.

Self-Coloring Lipsticks

These are the type that possess light color which develops into a red after application. They may be made with eosin or alloxan. An eosin stearate is first formed. Thus 9 parts of stearin are melted with one part of eosin and the mixture is heated for 5 minutes. Two parts of the mixture are then dissolved in 6 parts of the lipstick base and a little ethyl alcohol is added. The mixture is then agitated and the alcohol evaporates almost instantaneously. A yellowish, slightly fluorescent mass is obtained which is made into the sticks.

The base for the preparation is composed of 30 parts of stearin, 40 parts of white beeswax, 20 parts of paraffin wax, 50 to 52° C. melting point, 20 parts of white ceresin wax, 5 parts of spermaceti, 60 parts of white oil.

An alloxan lipstick contains 80 parts of white ceresin wax, 40 parts of stearin and sufficient odorless and tasteless white oil to give a mass of the proper consistency when the ingredients are melted together. Into this mass is then stirred a uniformly triturated mixture of 6 parts of alloxan and 12 parts of white oil. Agitation of the mass is continued until the mixture is about to congeal. The mass is then poured into molds and made into sticks. Vanillin is used alone or in combination with coumarin to improve the taste of the preparation. Other aromatizing and perfuming substances added include rose perfume, fruit flavors, such as strawberry and cherry. In using vanillin to improve the taste of the composition, care should be taken to prevent the crystallization of the vanillin from the mass due to too high proportion and imperfect mixing.

Other coloring matters used for this purpose include amalinic acid, murexonin and murexid. These substances develop color when they come in contact with the ammonia present in the perspiration.

Attention is also called to the fact that the eosin used for making these preparations must be made fat soluble. To do this the eosin is dissolved in alcohol and the solution is allowed to be absorbed by stearin. It has been observed that stearin in these preparations always becomes coated after storage for a short time with a white, mold-like, finely crystalline film, which spoils the appearance of the lipstick. In order to avoid this the eosin is first precipitated from its aqueous solution by means of sulfuric acid of high concentration and then is washed with distilled water until there is no longer any acid reaction. This is determined by tasteing the wash water which should not have the characteristic acid taste. A test with phenolphthalein for acidity in the wash water is not advisable for the reason that the washing would have to be carried too far to obtain a neutral reaction. The eosin is then dried at a moderate temperature. The yellow-red powder obtained in this manner is dissolved in diethyl phthalate or benzyl benzoate in the cold. This solution,—best ratio is one of eosin to six of the solvent,—contains the coloring matter in fat-soluble state. When applied to the skin, the sulfurized eosin becomes a deep and permanent red.

Coloring Matter for Mouth Washes

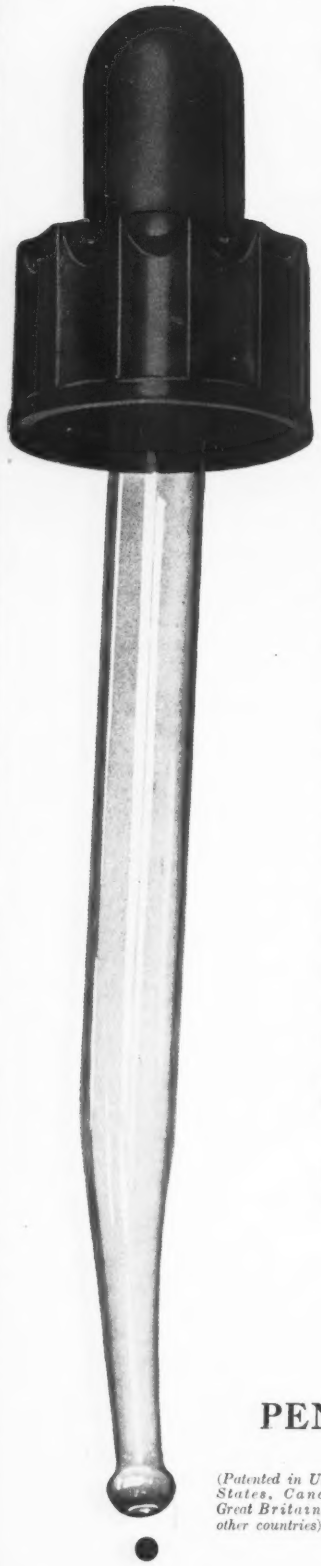
A dilute ethyl alcohol extract of red sandal wood or/and cochineal is suitable for coloring mouth washes containing about 60% ethyl alcohol and 6% hydrogen peroxide. Reddish, non-poisonous food colors may also be used, such as raspberry red. Deep color is obtained even when the color is added in small proportions. The mouth wash prepared in this manner does not flocculate. Ten to 12 grams of coloring matter are used per 100 kilograms of the mouth wash.

Inexpensive Bath Tablets

A mixture of 100 parts of calcined sodium carbonate, 100 parts of sodium chloride, which must be free from magnesium chloride, and 10 parts of talc, mixed with a little gum tragacanth paste as binder, is compressed into the tablets. A better product is obtained by adding pulverized borax in the place of the calcined sodium carbonate. The perfume bouquet, added in 0.5% proportion, contains 10 parts of pineneedle oil (Siberian), 10 parts of templin oil, 3 parts of lavender oil. Coloring matter is one part of sodium salt of fluorescein. Liquid bath preparations are aromatic essences and also highly concentrated solutions of essential oils and other perfumes in alcohol, acetone, isopropyl alcohol. One composition contains 150 parts of ethyl alcohol, 100 parts of water, 10 parts of pineneedle oil, terpeneless, 3 parts of linalyl acetate, 5 parts of terpineol and one part of eucalyptus oil.

PACKAGING DRUGS AND COSMETICS

A SECTION OF "THE DRUG AND COSMETIC INDUSTRY"



THE NEW PERFECTION DROPPING PART

Combines . . . .

1 A very attractive appearance due to a beautifully designed moulded cap in colors; colored rubber top to match; glass dropper of distinctive design and flawless glass.

2 Utility, due to the patented feature which secures the dropper into the cap in a way to secure an absolute seal and reseal.

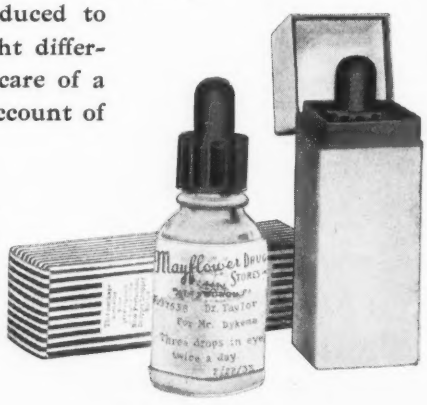
If you have a good product that requires a medicine dropper and you want a good container to go with it, you can not afford to use anything but the best.

We all know that an imitation has to carry a tempting price, otherwise the buyer could not be induced to consider it. However, a slight difference in price will not take care of a great reduction in sales on account of lost prestige.

Of Course

PERFECTION MEANS MORE

The reason for New Perfection dropping parts having such a large sale is that manufacturers are desirous of putting up their products in the best possible way and will not substitute anything that would in any way indicate the cheapening of their package. The Patented New Perfection dropping part is absolutely the best in every respect. In addition to its patented feature, it is the costliest to make, however, large volume production enables low cost. The extra depth corrugated non-rolling bakelite cap with the heavy flange rubber part that holds the dropper securely in the cap eliminates breakage and fully covers sanitary requirements.



NEW PERFECTION DROPPING OUTFIT
Supplied with Amber, Royal Blue, Flint and Emerald Green Bottles

Applicator Outfits with bakelite caps can also be furnished with Amber, Blue and Green Bottles.

(Patented in United States, Canada, Great Britain and other countries)

PENNSYLVANIA GLASS PRODUCTS CO.

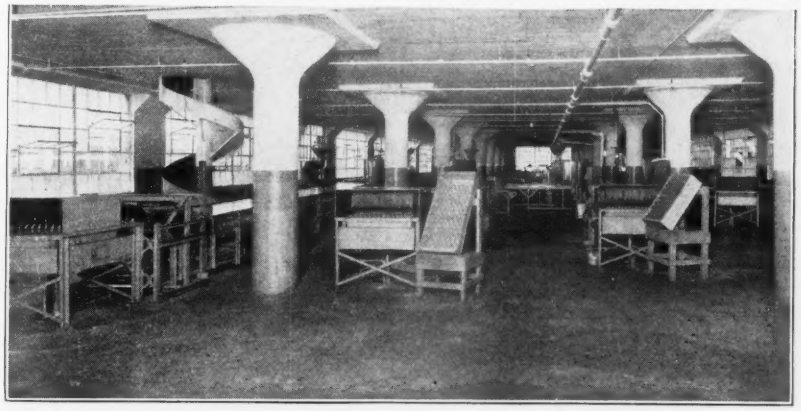
"Glass Goods of the Better Kind"

410-412 NORTH CRAIG STREET

PITTSBURGH, PENNA.

Progress

is born of efficiency. You can't stand still and progress. You can't wait—and progress. Mental activity and busy hands are the things. Little that was good enough before is good enough now.



U. S. Equipment in a prominent Pharmaceutical Plant

In Bottling and Packaging, like in all other necessary productive activities, much progress has been made, and our engineering experience, which has been devoted for over a third of a century exclusively to the solving and handling of Bottling and Packaging Problems on every conceivable kind of bottled product for America's outstanding bottlers, is at your disposal.

Let us know your problem. Whether it be the replacement of a single machine or the installation of a complete Automatic Bottling and Packaging plant, we will be glad to serve you.

U.S. BOTTLERS MACHINERY CO. INC.

INVESTIGATE U. S. EQUIPMENT

Agitators	Filters	Dryers
Belt Conveyors	Pumps	Vacuum Fillers
Cappers	Strainers	Accurate Measure Fillers
Corkers	Washers	Piston Fillers
Cooling Conveyors	Storage Tanks	

4015-31 No. Rockwell St. · · · · Chicago, Ill.

WASHING, FILLING and PACKAGING ENGINEERS

7 point service GIVES 1 RESULT

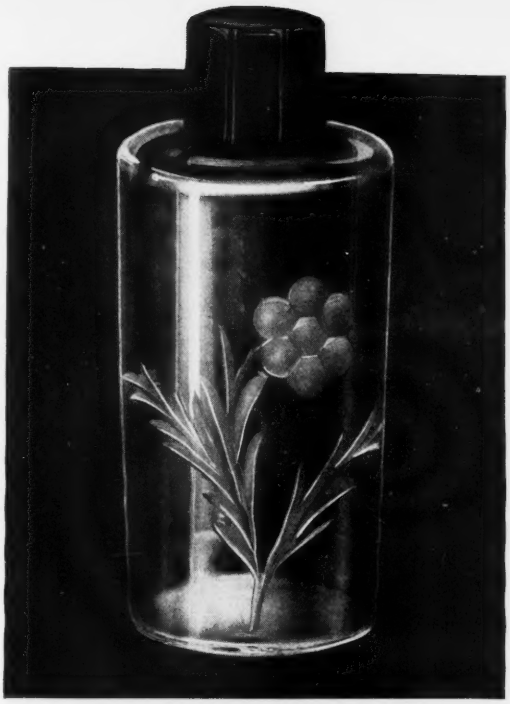
THE RIGHT CLOSURE FOR YOUR PRODUCT

There is nothing startlingly new about 7 Point Service but it does bring the result you want with the least amount of trouble and delay. It is based on broad experience in sealing, exceptionally fine research laboratories and unsurpassed manufacturing facilities. It is organized for the kind of prompt action that is thoroughly in step with the times. ◆ When next in the market for closures, give 7 Point Service a trial. You will learn why so many successful manufacturers rely on C. C. S. to meet their sealing requirements.

CROWN CORK & SEAL CO. Baltimore Md.

WORLD'S LARGEST MAKERS OF CLOSURES FOR GLASS CONTAINERS

It's all in the **CAP**



The New Dispensing Bottle

THE IDEAL, NEW DISPENSING BOTTLE FOR BULK PERFUME

Here is the ideal bottle to be used for dispensing perfumes. The illustration on the left shows our new No. 337 eight ounce bottle.

Beautifully designed, clear, brilliant glass, with graceful floral design cut in the glass, we can offer this number in sizes from one dram to sixteen ounces for sampling, lotions and other toilet preparations.

Also the popular, gem like bottle which gives every effect of cut glass. Furnished with moulded caps or glass stoppers in a variety of designs and effects.

In one dram bottles, perfect for dispensing perfumes.

CARR-LOWREY GLASS CO.

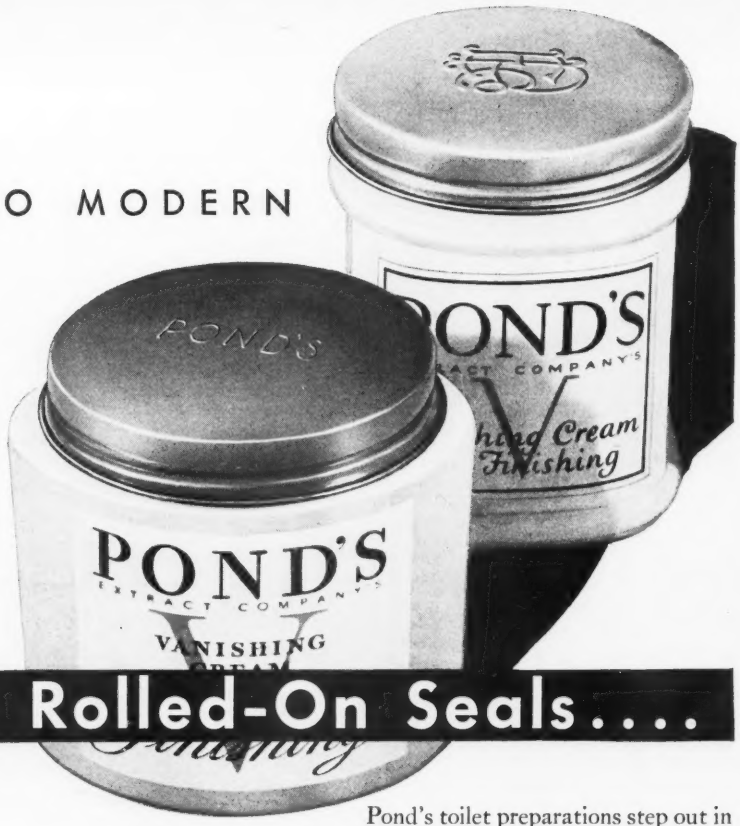
Factory and Main Office: BALTIMORE, MD.

NEW YORK OFFICE: 500 FIFTH AVE., Room 1427
Telephone: CHickering 4-0592

CHICAGO OFFICE: 1502 MERCHANDISE MART
Telephone: WHitehall 4326

CONTAINERS GO MODERN

Safely AND *Efficiently*



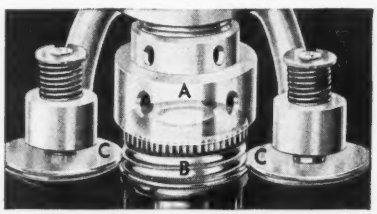
with Alseco Rolled-On Seals....

News! Sales and Manufacturing departments agree. ALSECO Rolled-On Seals combine smart appearance with swift, tight sealing. Salesmen can have a modern, "streamlined" package that speeds turnover. And the manufacturing department can save time and money on sealing!

ALSECO Rolled-On Seals assure a tight, hermetic seal. Yet, the contact between the cap and jar can be quickly and completely released, it's off in ½ turn. *No "friction smudging" ever!*

Let us show you how you can modernize your container, without sealing worries. We offer a complete sealing service for all types of products and packing. Automatic and Hand-Operated Machines; Alseco Rolled-On, Goldy, Screw Cap and Specialty Seals. Ask us to *prove* that Alseco Seals banish cap-jamming, "leaking and breathing". We'll furnish the machine, the operator, the seals, and seal your products in your own plant. We'll abide by any test you choose. *Write.* ALUMINUM SEAL COMPANY, NEW KENSINGTON, PENNSYLVANIA.

Pond's toilet preparations step out in modern dress. The opal jar formerly square is now oval. Label is more attractive. The ALSECO Rolled-On Cap, lacquered sea-green, blends pleasingly with the smart lines of the new container. Good looking. And, incidentally, recent tests proved ALSECO Rolled-On Seals 67½ times more efficient than old-fashioned screw caps in retaining product-strength.



Patented Rolled-On Principle Applies to All Sizes

Down comes the patented Alseco pressure block (A)—top of glass indents the liner (B)—pressure block, liner and container stand stock-still while the spinning rollers (C) tailor the skirt of seal into the threads of bottle.

ALSECO SEALS *and Sealing Machines*

NRA WE DO OUR PART

ALSECO SEALS TRADE MARK REG. U. S. PAT. OFF.

IT LOOKS EXPENSIVE

BUT IS IT?

THIS handsome box is made of Durez. It contains two vials of Chlorosalsterol tablets, a new and costly medical preparation.

We illustrate it here because a good many people have asked how much such a box costs. It looks expensive. Yet with all engraved insignia, the lustrous colorful, chip-proof surface, the lightness of weight which cuts down shipping-bills, and the permanent toughness of this unusual Durez package, production charges *still* are down to a little more than the cost of an ordinary box.

When you want a quality container that looks the part, that can be produced quickly, and in great numbers, turn to Durez!

Out of Durez are being made containers of every size, shape, and design for manufacturers of limited, exclusive products . . . for producers of ethical drugs . . . for makers of costly perfumes and cosmetics . . . for any business man who wants his product to gain in distinction and prestige!

Durez packages are strong and tough. They resist acids, heat, moisture, perspiration, gases. They are non-fragile, dent-proof. They come in a wide variety of colors. And they catch the wandering eye of the customer and hold it! For facts, figures, samples, and a free copy of the interesting monthly leaflet, *Closure News,* address General Plastics, Inc., 1110 Walck Road, N. Tonawanda, N. Y. Also New York, Chicago, San Francisco, Los Angeles.

• • •

(General Plastics, Inc., does not perform the actual molding operation, but supplies raw material to custom-molders with whom you deal. We will gladly arrange contacts with molders and designers when you so desire.)

DUREZ

REG. U. S. PAT. OFF.

THE MODERN MOLDING MATERIAL

Safety comes first!

WHEN shipping drugs, cosmetics or any product contained in a bottle, your first thought is safety. And next you think of packing cost. Hundreds of firms have adopted KIMPAK because it solves both problems. KIMPAK is safe and economical.

As shown in the illustration, the bottle of Admiracion Soapless Shampoo Treatment, made by the National Oil Products Co., is first wrapped in KIMPAK and then placed in a metal edged box. KIMPAK, a soft, resilient, fluffy crepe wadding, free of dirt, grit and foreign substance, prevents rubbing and softens shocks and jolts.

The National Metal Edge Box Co. has offered to mail a free sample of this shampoo packed in KIMPAK. Just address this firm on your letterhead at Philadelphia, Pa.

For a sample of KIMPAK send coupon to Kimberly-Clark Corporation.

Kimpak
REG. U.S. PAT. OFF. & FOREIGN COUNTRIES
CREPE WADDING

NRA
WE DO OUR PART

KIMBERLY-CLARK CORP., Neenah, Wis.
Address nearest sales office: 8 South Michigan Avenue, Chicago; 122 E. 42nd Street, New York City; 510 West Sixth Street, Los Angeles.
Please send us sample and full information on KIMPAK. DCI-12

Company.....
Attention of.....
Address.....
Our product is.....

Hitch your Sales to a STAR

● Choose an *OnIzed* container and put your product in the spotlight, give sales a welcome boost. The smart designs . . . the clear transparency of the *OnIzed* glass . . . the many practical features of *OnIzed* containers will contribute to your sales success and packaging economy. So we say, hitch your sales to a star—make your package selection from our all-star line of brilliant *OnIzed* containers. Write for samples and our low prices. Owens-Illinois Glass Company, Toledo, Ohio.

OnIzed
PHARMACEUTICAL AND PROPRIETARY WARE

Owens-Illinois

Old package at left; New at right

A PACKAGING

THAT packaging would ultimately be lifted out of the realm of ballyhoo and established upon sound, scientific principles has long been evident to those who have observed the progress of this productive art. Ever since the packaging era began, this paper has consistently advocated a more general recognition of the technical elements of packaging: of all the chemical, physical and engineering factors involved.

It is with keen interest, therefore, that we learned of the establishment in the recently completed Merck Research Laboratory at Rahway of a new department devoted solely to package research. In this packaging laboratory Mr. E. E. Lauer, a chemist, working under the supervision of Dr. W. H. Engels, director of the applied research division of the great Merck laboratories, is now engaged in evaluating the technical factors which must govern the materials, shape, type, and sealing features of all Merck packages. No considerations of artistry will influence Mr. Lauer's work; his is the job of finding the package technically compatible with each and every product.

The work of this unusual laboratory will be followed with keen interest by the entire trade and the results of the researches therein conducted will undoubtedly influence the character of all drug and chemical packaging and packaging procedure.

In prosecuting his researches, Mr. Lauer keeps constantly in touch with Mr. Sheldon Fox, buyer of packaging materials; with the production department, and, through the sales department, with the market in which the Merck products are sold.

This contact with the conditions under which Merck products are sold, and the knowledge that chemical products must be protected against all conditions which may impair purity, strength or good will, not only when they are being produced and distributed, *but also during the consumption period* has already led to a change in the packaging of Merck prescription chemicals and household products.

Most of the bottle closures of the prescription line have been changed and plastic caps substituted for the other caps, glass stoppers, and corks formerly used. Plastic caps were selected for their strength and resistance to the laboratory atmosphere and also because it was established that for such a variety of chemicals as Merck produces, they are the most inert from a chemical point of view. This type of screw cap was adopted because other forms of closure, which do not cover the entire lip of the container, expose the contents to dust and contamination, whenever the closure is removed

Two new jars in different sizes giving some idea of the wide range

LABORATORY

Merck recognizes the technical basis of packaging by establishing a packaging research laboratory.

New at left; Old at right

and the contents poured out. To obviate this is especially important in the case of prescription drugs and chemicals whose purity must be rigidly safeguarded at all times. In order to safeguard the work of the pharmacist, Merck adopted a brilliant red cap for narcotic containers, the remainder of the line being sealed with black closures embossed on top with the distinctive Merck cross.

The decision to adopt plastic screw caps required considerable additional work in the research laboratory in connection with the selection of chemically compatible liners. It was soon determined that there is not yet available a universal liner that might be used for all products. Hence, since different liners had to be used, it was decided to have them distinctive in appearance, so that errors in packaging a product with the wrong liner would be eliminated. This led to the selection of four types of liners, each designating a certain chemical group. Now, even though caps with the wrong liners may be sent to the packaging department, the supervisor can immediately detect the error and have it rectified. About ninety per cent. of the prescription chemicals are included in these four liner-groups; the remainder being individual cases requiring special treatment.

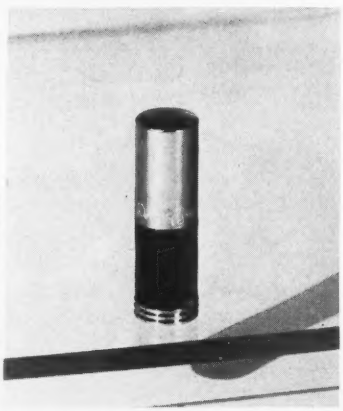
Old and New. All Merck packages are wrapped in glassine paper which was removed for photographing

The testing of these liners covered a long period of time. Filled packages were invented so that the material would always be in contact with the liners. Temperature was maintained at the highest point which would be met under all trade conditions in any part of the country. One of the interesting facts learned in testing liners (and one which emphasizes how careful packaging research must be) is that a certain liner might stand up perfectly for five months, and suddenly break down during the sixth month. Therefore, constant checking of these liners over very long periods of time was considered most essential.

To protect articles packed in tins and cardboard cannisters, Merck adopted the lock-top type of closure for both tins and cardboard cannisters. This closure prevents contamination of the goods by dust, precludes the accumulation of material in the grooves of friction plug closures with consequent corrosion and contamination of the goods, and affords a more efficient re-sealing of the containers in use. For these drug and prescription packages, therefore, the friction plug type of closure, has been entirely discontinued.

Although this type of can provides a good seal, is easier to open and close, as well as being more effectively sealed when reclosed, the purity of the contents is

(*Continued on page 588*)



Abbott's Brewer's Yeast is the first product to make a definite statement of content of Vitamins B and G. It is in tablet form, and contains not less than 35 Sherman units of Vitamin B, and 26 Sherman units of Vitamin G per gram.

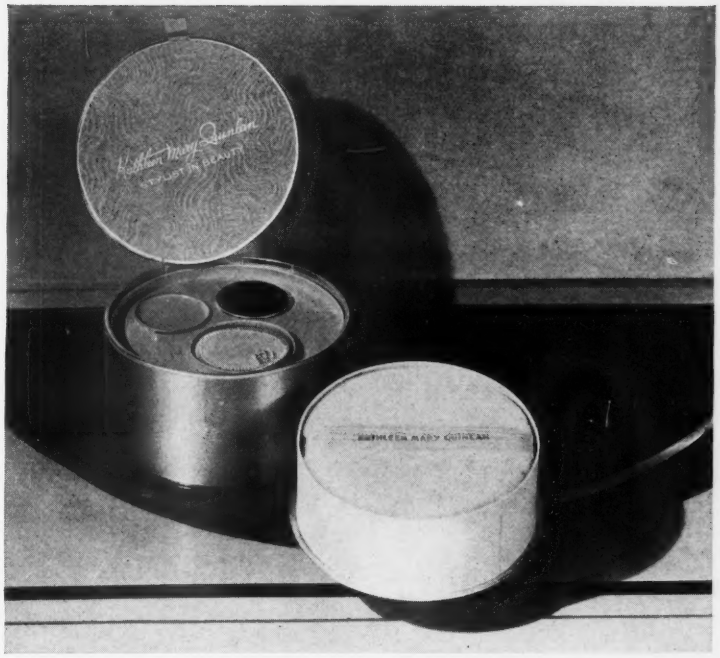
Armstrong Cork & Insulation Co. is offering caps with chromium inserts molded into the cap.

A gentlemen's Eau de Cologne in the newly popularized De toi je chante odor by Parfums Charbert, Inc., is packaged in a very mannish looking sprinkler top flask with either black or brown leather partial covering decorated with a silver head of William Gaxton, star of "Of Thee I Sing" and "Let 'Em Eat Cake". A small silver and black label on the back bears the endorsement of this well-known star.

A swivel type lipstick developed in black and silver tone is the most recent development of Dorothy Gray, Inc. This new stick comes in eight shades, corresponding exactly to the shades of the lipstick, cream rouge and compact rouge developed according to the Dorothy Gray skin-tone theory.

Ybry compacts have been repackaged in most attractive vanities as shown.

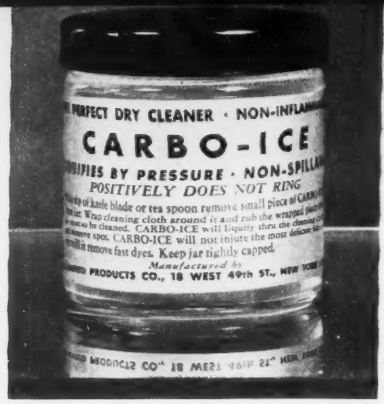
Novel indeed is the new Kathleen Mary Quinlan combination "Mist of Dawn" make-up powder box. A turquoise blue moire covered powder box with silver trimmings, in the top of which are insets of dry rouge, paste rouge and eye shadow, is the ideal package for the over night bag. It compactly contains all make-up essentials.



Petrolagar with Cascara has been introduced by Petrolagar Laboratories. It is packaged in the special wide-mouthed bottle used for all these products, only the color is of amber. Photo, courtesy Hazel-Atlas Glass Co.

Abbott's Vitamin Fortified Cod Liver Oil is unique in that it is fortified only with other natural fish oils. Vitamin potency is 2,000 A units, and 666 A. D. M. A. Vitamin D units per gram. Capsules are of 10 and 20 minims.

Dr. Caldwell's Pine Balm is a new petrolatum base chest rub and inhalant introduced by the Syrup Pepsin Company. It is packaged in a green jar with a yellow label, and yellow lettering on the green cap. Carton is in green and yellow with a white square.


PERFECT DRY CLEANER · NON-INFLAM
CARBO-ICE
SPLIES BY PRESSURE · NON-SPILLA
POSITIVELY DOES NOT RING
Manufactured by
PRODUCTS CO., 18 WEST 49th ST., NEW YORK

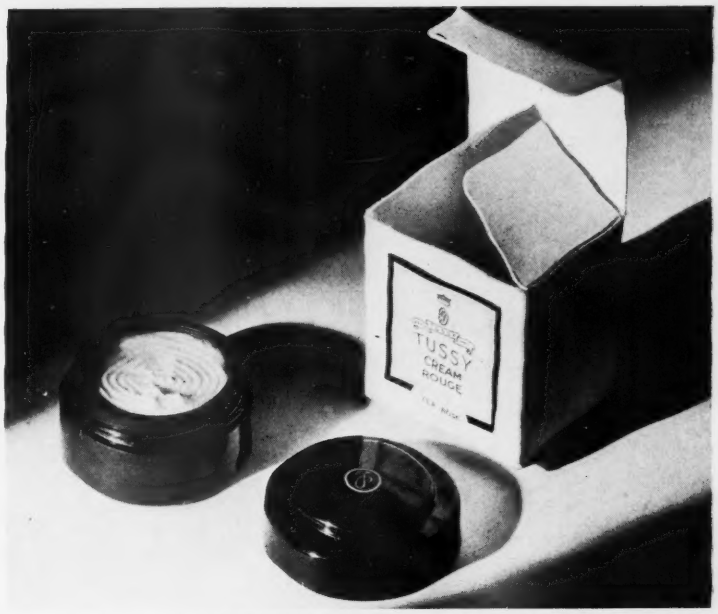
The plastic base of the Thirty-Five combination does duty as an ash-tray Photo, courtesy, General Plastics, Inc.

Carbo-Ice is a water clear solid carbon tetrachloride cleaning preparation. It is packaged in clear glass with a double-shell cap.

Mechante, a delightful heady, spicy, enchanting scent by Parfums Charbert, Inc. makes the second odor of this line, of which De toi je chante is the first. The new odor comes in the same sizes and is similarly priced. An attractive green suede paper box with gold trimmings contains the square bottles. A lipstick, known as the "Drumstick," developed in a red and white case with blue bands at top and bottom and in black and white with black bands is another item recently added. The lipstick is offered in three shades, light, medium and vivid.

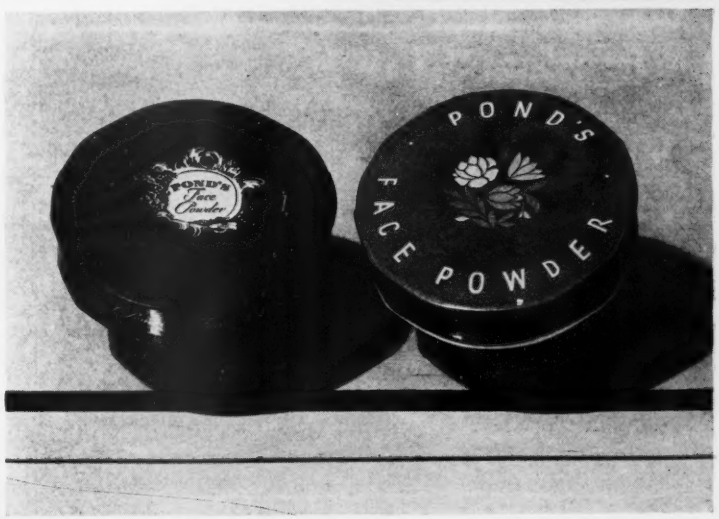
Mae West perfume by Gabilla is one of the outstanding novelty perfumes of a decade. The box is ivory with Mae West wise-cracks in blue. Interior of the box is gold with a cerise silk base.

Tussy *Cream Rouge is now making* its appearance in a black plastic jar engraved with the Tussy script T in *red on the cover. Carton is colored* cream, red-orange, and black. Photo, courtesy of General Plastics, Inc.

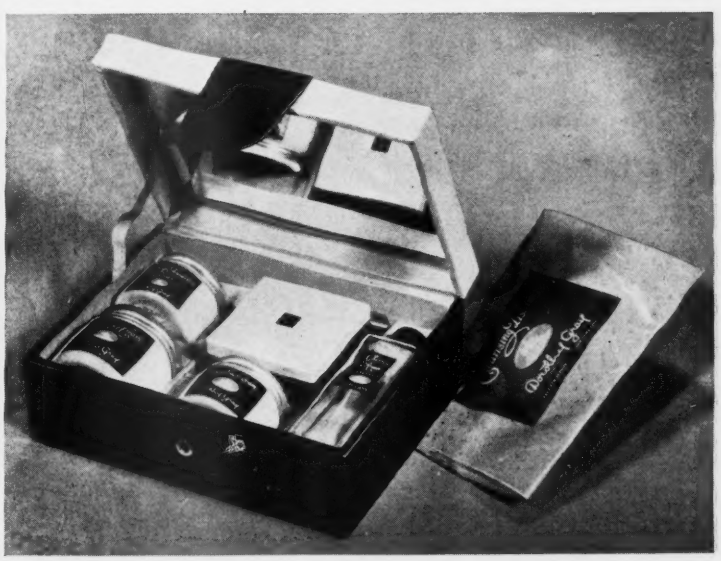


Pond's *10 and 25 cent powder packages* have been brightened in color, now being light green with gayer lettering *and decoration. The old package is at* the left; new one at the right.

Herco *Pine Oil is packaged in a bottle* upon which the label is directly lithographed. The back of the bottle contains directions for use also directly applied on the glass without use of a paper *label of any sort. The* preparation does not affect the lithographing.



A washable ribbed fabricoid covered box in navy blue and white has been selected by Dorothy Gray, Inc. for its *new beauty kit. The inside of the box* contains a large mirror in the lid, cleansing cream, make-up foundation *cream, special mixture cream,* skin lotion, powder and tissues. The lining is of light blue.



PACKAGING NOTES

FROSST'S TABLET TIN

■ This department is pleased to acknowledge the following communication from George A. Simonds of Charles E. Frosst & Co., Montreal, Mr. Simonds says:

"It is interesting to note your comments on the new Squibb Aspirin container in the October issue of THE DRUG AND COSMETIC INDUSTRY.

"In August of last year we adopted a similar package for our Acetophen, and since you have shown so much interest in the Squibb package, we are sending you some samples of Acetophen under separate cover."

The package referred to is a slide-cover tin which contains twelve tablets, six rows of two abreast. Like the Squibb tin, the cover can only slide in one direction and two, almost imperceptible, stops on the cover, allow it to open only about five-eighths of an inch, thus exposing two tablets and part of the next two.

The package opens with one hand, is entirely free of the pill-spilling and nail-breaking drawbacks of hinge-cover tins, and makes a very handy and convenient package for the consumer. Its chief point of difference from the Squibb tin is that it does not have the single tablet dispensing feature.

POND'S POWDER PACKAGES

■ Pond's sale of 10-and 25-cent powder packages has increased tremendously during the past two months. This increase is attributed wholly to the new package which was adopted about the first of October. The original package was smart, but too restrained. It was not colorful enough to attract attention on the counters, particularly in the ten-cent stores where attention value is at a premium. The new package is a light green, with gayer lettering and decoration. A slightly rounded top, together with the lighter color, makes also for a larger-looking package.

THIRTY-FIVE

■ One of the trickiest of the double-duty, re-use, or what-have-you packages, is the base which Frederick Stearns is using to introduce their new "Thirty-Five" line for men. The line consists of shaving cream, powder and lotion, and a strong appeal is made for the ensemble by a molded base which holds and displays the three packages and afterwards becomes an ash-tray. The base is a bit too complicated to be described here but a picture of this package-premium or premium-package is shown elsewhere in these pages.

PROTECTIVE COATING

■ In our May 1932 issue we called attention to an ointment jar of the Burroughs Bros. Manufacturing Co., which, for the first time, made use of lithography applied directly to an opal jar. Now the Hercules Powder Co., in one of its new pine oil products, "Herco," designed for use on the skin, uses this same type of labeling on a bottle to get a very attractive package.

But Hercules has done more than secure a good-looking package. When this product was first considered, it was found that the pine oil, acting as a very efficient solvent, destroyed practically every type of label under consideration, even this direct lithography on the jar itself. Obviously, a product designed for use on the skin could not "eat away" a label without arousing some degree of hesitation in the mind of the consumer. So the laboratories of the company proceeded to develop a protective coating, immune even to the ravages of pine oil. Drug and cosmetic manufacturers with allied problems of the type which might be solved by protective coatings might do well to look into the work Hercules has done with these materials.

MENNEN'S BABY

■ The group picture of Mennen packages which we published in these pages last month seems to have served to direct attention towards the really fine package family which Mennen now has. There has been considerable favorable comment following the appearance of this picture, with the baby-in-the-boat on the Antiseptic Oil package, coming in for a large share of praise.

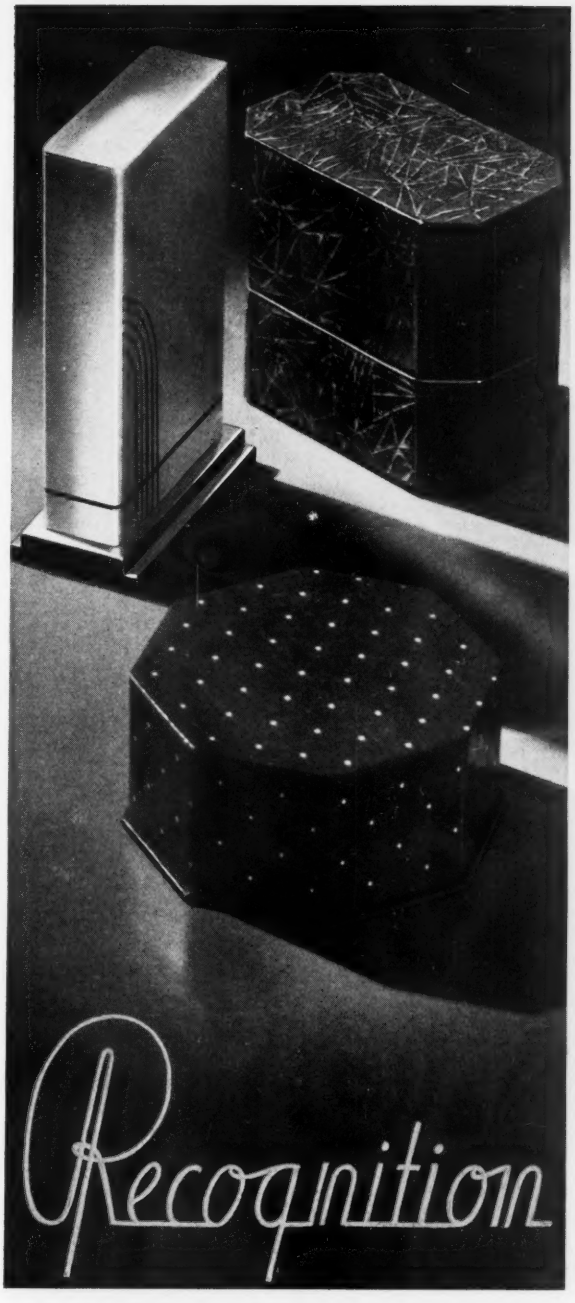
SYLPHSEAL

■ Sylvania is the latest to announce a line of cellulose caps and bands. The Fredericksburg, Va., company will manufacture not only regular transparent, metallic bronze and mat opaque bands and caps, but also two new patented items which are exclusively Sylvania products—high gloss enamel and silky lustre. Naturally enough, the new line is called "Sylphseal."

WINDOWS FOR TIN CANS

■ Glass inserts of Pyrex may now be placed in can tops to allow inspection of contents. Tops containing these inserts are rolled and soldered into the cans on

(*Continued on page 588*)

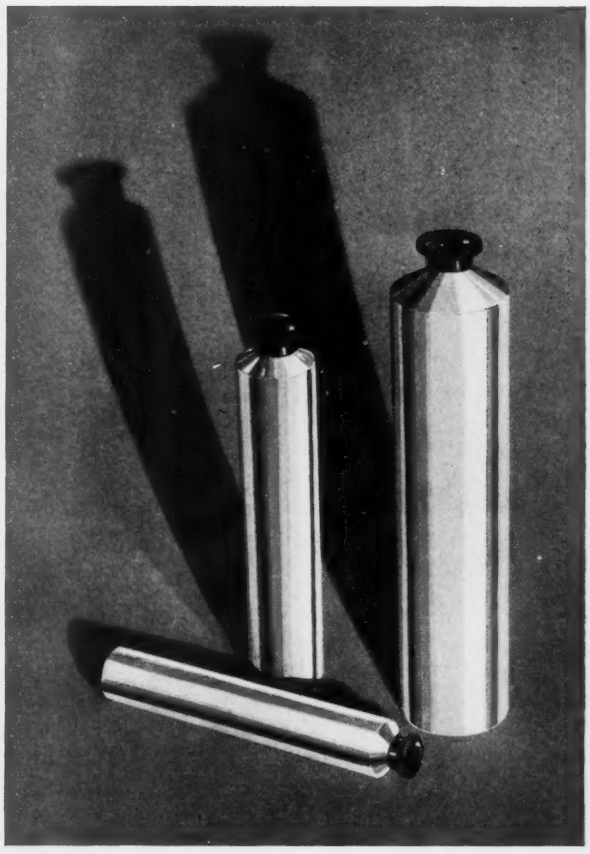


MODERN business methods demand that the Package be in harmony with the product . . . and that it radiate tone and command recognition!

OUR designers are strictly *package conscious*, and invariably a package or container originated by "HATCH of LOWELL" expresses quality, is distinctive and unforgettable. Put your package problems up to us.

The C. F. HATCH Company
LOWELL, MASSACHUSETTS, U. S. A.

CHARACTER . . . IN TUBES



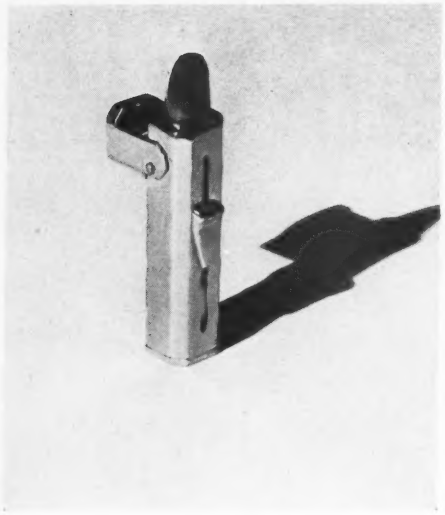
WE offer you complete service in the creating and designing of decorated collapsible tubes.

We will also gladly assist you in determining upon the best sizes and styles of tubes for merchandising your product—the most appropriate closure or cap—and any other factors involved in the use of tubes as containers.

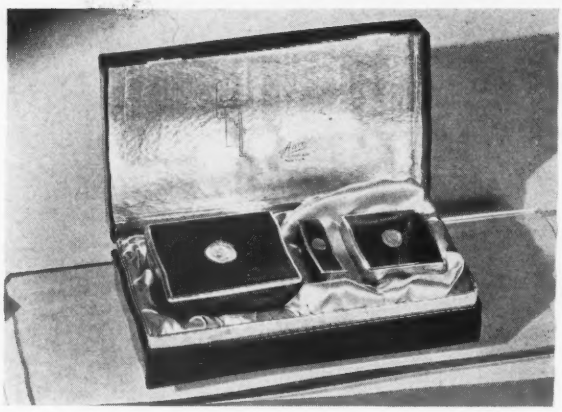
NATIONAL COLLAPSIBLE TUBE COMPANY

Providence - - Rhode Island

New York Office—331 Madison Avenue
Telephone MUrray Hill 2-0339



The new silver tone automatic lipstick of Charles of the Ritz may be had in Clair, Electric, Fonce, and Pour le Soir. The lipstick is opened with one hand by releasing the red banded top and raising the lever at the side.



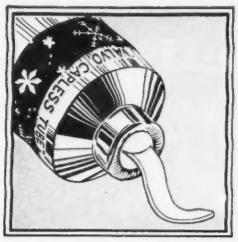
A black and silver striped covered gift box lined with silver tone satin and containing the attractively packaged powder, lipstick and compact of the *Martha Washington Colonielle line* makes a very desirable Christmas item. The powder box is in the company's regular black and silver design with lipstick and compact to match.

Harriet Hubbard Ayer has replaced all square deep jars with more shallow cylindrical jars, and all embossed caps have been replaced with smarter plainer caps. Labels have been simplified for easier readability. Photo, courtesy Hazel-Atlas Glass Co.

PACK-URGES*

by "Duff" Gordon

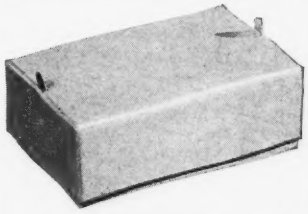
"CAPLESS TUBE" PROVEN SUCCESS AFTER A YEAR'S TRIAL!



Just a little over a year ago Pack-Urges featured a "Capless" tube, suggesting it as the ideal container for tooth pastes, creams, and pastes—by virtue of its eliminating for all time the "lost" tube cap problem—or the costly item of leakage on shipments for foreign climes. Much publicity resulted—and a tooth paste that adopted the new closure reported "success" from the outset.—Now—more than a year later—we have tubes which were filled and numbered for later tests—others in use for twelve months—and these samples prove beyond question that the "Capless" tube overcomes many bothersome questions; is economical to manufacture, as it eliminates cap costs; lives up to its guarantee of automatic closure after each time it is used; and gives manufacturers of tooth paste, shaving cream or what have you, an additional advertisable feature for their products. We are predicting a continued success for the "Capless" tube and will send you samples to prove our point. Write us now for costs and proofs of our statements as to its success.

• • •

MAILERS FOR EVERY PURPOSE



The mailing box illustrated here is just one style of the wide range of "Gordon" Mailers, suitable for every type of sampling campaign . . . Some are corrugated lined—others have sealed flaps—all are approved by the United States Postal Service . . . Show us what you want to mail and we'll build a box around it that will deliver your product in perfect condition . . . Prices are moderate . . . Workmanship unexcelled . . . A call will bring you full particulars.

• • •

PERFUME AND POWDER BOXES

Every perfumer knows that boxes for Perfumes, Cosmetics and Toilet Preparations should have a note of individuality *built into the box.* Style trends and interior decorative preferences are but two of the many phases which we keep in mind when making boxes for the cosmetic trade . . . The only set-up box included in the best All American Twelve Packages was handled in detail by us (designed by Mrs. Avery Robinson)—just another example of our ability to interpret your ideas in definite salable boxes. Call us in on your next box purchase . . . We'll serve you right—and save you money.

"Pack-Urges" is issued occasionally in the interests of better packages. If you wish to receive it regularly it will be sent free upon request. Address: H. R. M. Gordon —A Complete Packaging Service—331 Madison Ave. (Phone Murray Hill 2-0339) New York.

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SPOTLIGHT YOUR PRODUCT

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● When the color of your product is important, beautiful glass adds sparkle and brilliance which often doubles eye appeal. Dull, lifeless glass, on the other hand, can kill the color, and there IS a difference in glass! Make us prove it! Ask for sample and observe your own product spotlighted by Hart Glass.

HART GLASS MFG. CO.

504 E. Center St. DUNKIRK, INDIANA

● CRYSTAL CLEAR BEAUTY IN EVERY JAR

HART BOTTLES & JARS

Vanishing Creams

(*Continued from page 538*)

from the cream. The result is the cream is impregnated with numerous gas bubbles which in time will rise to the top causing the cream to sink in the jar and the buying public assumes they have been cheated.

Strong Liquid Ammonia, due to its pyridic odor, is, very irritating to the eyes, nose, throat and lungs. It has a marked effect on employees and also has a tendency to discolor the cream after a time.

Triethanolamine due to its low PH value only 10.2, has an alkalinity of approximately one-sixth that of ammonia and when combined with fatty acids the soaps thus formed are practically neutral, having a PH of 8, true neutrality being 7. It also discolors slightly.

Borax will produce a very white cream, but has the disadvantage of producing a grainy cream.

Mixtures of one or more of the above alkalies are interesting to the experimenter bearing in mind that their alkaline strength must be properly calculated for comparable results.

Glycerine or some hygroscopic (having the ability to absorb moisture) material must be used, but should not exceed 10% of the formula. Its use in the cream is two-fold; it retards evaporation and holds moisture on the skin and prevents rolling. When too high a percentage is used it has a tendency to absorb moisture after application to the skin and is indicated by minute globules of water here and there on the powdered surface.

The disadvantage of glycerin, which is undoubtedly the main reason why vanishing cream is not more popular, is that a great number of women have an idiosyncrasy to it which manifests itself in the form of red blotches under the skin. This condition, however, can be eliminated by substituting diethylene-glycol-monoethyl-ether which is not sticky and is without irritating effect; having a soft soothing action upon the skin.

Pearliness considered as a silvery appearance approximating that of powdered aluminum is caused by the recrystalization of the unsaponified or unneutralized stearic acid, which forms minute laminae that reflects light at any angle causing the effect, and the rapidity of development depends entirely on the operator and his "modus operandi", and usually increases with age. The addition of oils to the formula destroys pearliness.

There are many manufacturing methods or "modus operandi" to eliminate confusion on the above basic formula.

The following is the one used by most manufacturers:

To start we must have two suitable kettles of a size consistent with the batch to be made. For small batches up to 100 pounds good enameled soup stock pots are suitable, but for larger batches steam jacketed kettles are used. We will not go into large production equipment here. Next we should have two good thermometers of either C or F scale and a suitable wood paddle made of birchwood. Birchwood is best because we must guard against discoloration caused by other woods. An accurate scale of suitable size should be available as all parts are by weight and should never be measured by volume. Metals causing discoloration in alkaline solutions should never be used. Good glass-lined enamel ware, monel metal or stainless steel are suitable only.

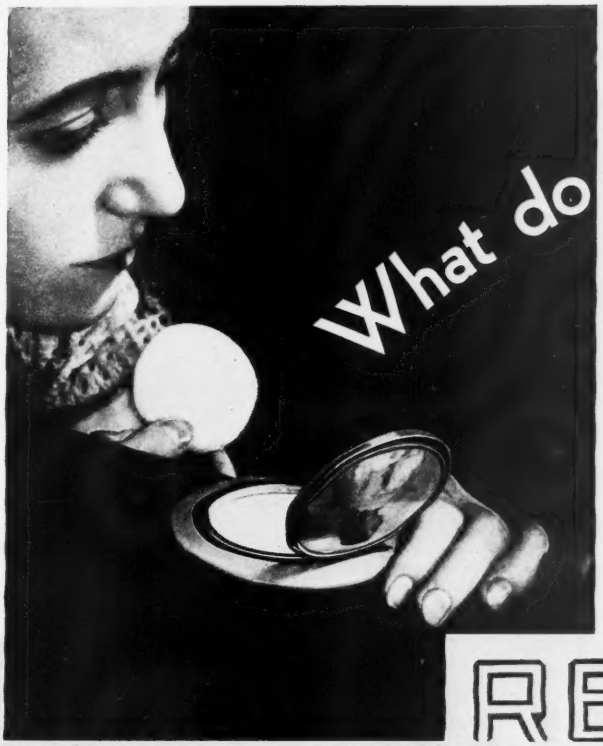
Weigh out and place in one kettle the stearic acid, other waxes, oils and fats if any, and in the other kettle place the alkali; hygroscopic material and water and (gum solution if any). Both kettles are placed over the gas flame or electric plate. It is not necessary to use a water bath on small batches providing the operator is careful not to over-heat the materials used.

Both kettles are heated until all materials are melted and the heat in both kettles after melting is regulated to a temperature of 80°C. or 176°F. The temperature is important and should be the same in both kettles. However, if there is but two or three degrees difference it should be in favor of the water solution (being higher).

Now pour slowly the water solution into the melted stearic acid and other substances if any; stirring all the while it is going in making sure of a complete mix and continue to stir for a few minutes; insuring complete saponification. Now shut off the heat. It will be noted at this time the mass is curdy or jelly-like and quite viscous. The cream now commences on the cooling process which is so important in the development of pearliness and the best method is to slowly turn the cream over with the paddle from time to time. The exact number of minutes between turning over periods cannot be given as conditions vary with the size of the batch, room temperature, etc. By observing closely it will be noted a crust forms on the top of the cream as it cools. This crust is your indicator. Do not allow it to form to any appreciable depth as this will cause the cream to be lumpy, in other words as soon as a slight crust forms turn the mass over slowly until the crust has been worked under; then stop until a new crust forms. From this explanation it is obvious that pearliness is developed by allowing the mass to lose its heat evenly.

This turning over process should be continued until the cream is quite cool at which time it is set away over night to thoroughly cool. The following day it should be reworked and it will be noted the cream has gone through a change and become much softer, smoother and some degree of pearliness has developed, which will increase from day to day in the jar. After having reworked the cream the perfume oil is poured in and further working will disperse the perfume throughout the mass. Creams of this type are generally perfumed on a basis of 4 to 6 oz. of perfume oil to 100 lbs. of cream over six ounces is hazardous as the perfume oil is apt to cause a burning sensation to the skin.

The cream is now ready to be packed in jars. Care



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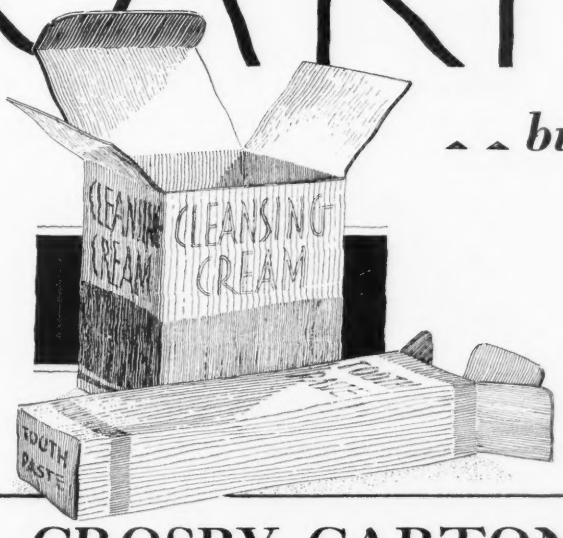
MOLDING RESINS • MOLDING COMPOUNDS • LAMINATING VARNISHES

CARTONS



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. . . a difference in materials
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all of which make CROSBY CARTONS ideal packages for introducing your products to the consumer. Cartons by CROSBY encourage initial sales.

CROSBY CARTON COMPANY INC.

743 E. Sixth St. Boston, Mass.

should be taken in filling to top of the jars as the cream is scouped in with a spatula or other suitable implement. The reason for this is to force out any accumulating air.

Shaving Creams

(*Continued from page 537*)

of sodium cholate. Sodium cholate and lecithin, in addition to increasing the wetting action of the lather, ameliorate its harshness. Sodium lauryl sulphonate is also said to increase the lathering properties of any shaving cream to which it is added.

The best alkali is, of course, potassium hydroxide which, reacting with the stearic acid, forms potassium stearate. This alkali makes possible a thick, heavy lather which at the same time is fairly mild. However, the addition of a small per cent. of sodium hydroxide (about 1/20 of the amount of potassium hydroxide) makes the lather still heavier and softens the beard more readily. Hence, practically all good shaving creams contain a mixture of sodium and potassium hydroxides in an approximate ratio of 1 to 20. An excess of sodium hydroxide would make the cream harsh and hard.

Potassium carbonate may also be used, but owing to the fact that it liberates carbon dioxide, a good part of which is trapped in the cream making it spongy, it is not desirable.

The following formulas illustrate creams of various consistency employing different ingredients. With what has been stated above the experimenter should have no difficulty in producing a first grade cream. Consistency can be adjusted to suit requirements by increasing or decreasing the percentage of water.

No. 1.

Stearic acid T. P.	33.6%
Coconut oil, cochin	6.4 "
Glycerin	4. "
Sodium lavryl sulfonate	3. "
Boric acid	1.4 "
Potassium hydroxide 42°Be	18.4 "
Sodium hydroxide 42°Be	2.8 "
Water	29.9 "
Perfume	.5 "
	100.0%

Procedure: Melt one-half of the stearic acid and the coconut oil in a kettle. Put the water, boric acid and sulfonate glycerin into another kettle and heat until the boric acid dissolves. Add to this solution the potassium hydroxide and sodium hydroxide and mix. Run the melted stearic acid into a steam jacketed mixer, and then add the hot alkali solution with the agitator in motion. Keep the steam on for a half hour while mixing. Meanwhile, in a separate kettle, have the remainder of the stearic acid melted and now run it slowly into the soap. Continue the stirring, not too rapidly, until the soap is smooth and homogeneous. Then add the perfume and mix it in well. Dump the batch and age it for three days.

If the cream appears spongy this is due to the incorporation of air owing to excessive rapid mixing or the use of improperly shaped paddles. Flat paddle mixers, whether of the epicyclic; the pony or interacting type, are best. If air has been incorporated it can be removed by running the cream through an ointment mill. In large production the cream is sometimes run over chilling drums.

No. 2.

Stearic acid T. P.	28.0%
Cetyl alcohol	2. "
Coconut oil	6. "
Potassium hydroxide 50°Be	18.8 "
Sodium hydroxide 20° Tw	1.6 "
Glycerin	3. "
Water	38.5 "
Boric acid	1.6 "
Perfume	.5 "
	100.0%

Procedure: Melt one-half of the stearic acid and coconut oil in one kettle. In another kettle melt the remainder of the stearic acid and the cetyl alcohol. In a third kettle heat the water; dissolve the boric acid in it, and add the glycerin. Then to this solution add the potassium and sodium hydroxides. Strain the melted stearic acid and coconut oil into a steam jacketed mixer. Start the agitator and run in the alkali solution. Mix for a half hour with the heat on and then add the stearic acid, cetyl alcohol mixture very slowly. Continue the mixing until the soap is smooth; add the perfume and mix it in well. Dump the batch in portable tanks and allow to age for three days.

No. 3.

Palm-kernel oil	5.72%
Stearic acid T. P.	25.50 "
Coconut oil	6.36 "
Potassium hydroxide 85%	8.57 "
Sodium hydroxide 85%	.63 "
Glycerin	6.54 "
Boric acid	1.59 "
Water	44. "
Bay oil	.87 "
Menthol crystals	.22 "
	100.00%

Procedure: Put one-half of the stearic acid, all of the coconut and palm-kernel oils into one kettle. Melt the remainder of the stearic acid in another. Put the water, boric acid and glycerin into another kettle and heat until the boric acid dissolves. Then add the alkalies and stir with a wooden paddle until completely dissolved. Run the mixture of stearic acid, palm-kernel and coconut oils into a hot steam jacketed mixer. Start the agitator and add the hot alkali solution. Mix for a half hour with the steam on. Shut the steam off and slowly add the remainder of the melted stearic acid from the other kettle. Mix until a smooth, homogeneous cream is obtained. Then add the menthol dissolved in the bay oil. Allow the cream to stand for three days and mill if desired.

(*Continued on page 570*)

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FOR

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WITHOUT EXPENSE

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ARCO corks are made only from carefully selected Portuguese and Spanish corkwood by skilled artisans using the most up-to-date machinery.

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(the double seal of cap and film)

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Is a GUARD against COUNTERFEITING

Cap may be printed with a warning to purchaser not to accept if inner seal is broken or tampered with.

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BROOKLYN, N. Y.

Established 1890

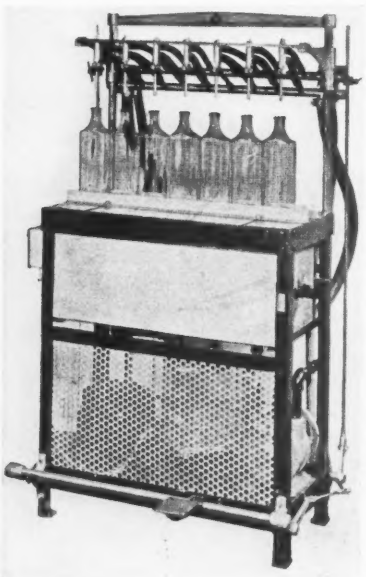
U. S. Patent & Pats. Pending—Trade Marks Reg.

MANAGEMENT FORUM

By Francis Chilson
Production Engineer

New Vacuum Filler

An eight head vacuum filler of very simple design and inexpensive construction has been placed on the market by Volumeter. The unit will fill from fractional ounce sizes to a quart or more. It is a straight line filler and its operation leaves the operators hands entirely free. She simply puts the bottles on the conveyor, steps on a treadle bar and that's all there is to it. The machine is so designed that the conveyor may run through it and a bottle stop can be arranged so that when the foot treadle is released, the stop will draw back and allow the bottles



to pass out of the machine. The foot treadle is a bar which crosses the entire front of the machine so that the operator can run the unit regardless of where she is standing. This is a surprisingly inexpensive and compact filler and if you're interested we'll be glad to hear from you.

Incidentally the same outfit makes a simple, inexpensive little unit for revolving drums. Originally intended to function as a drum washer, several manufacturers have used it to mix liquids and even dry materials. They simply put the stuff into a suitable drum or barrel, drop it on the rotors and start the machine going. Both of these units are shown herewith. By the way, a treadle trip can be rigged up on the bottle filler so as to leave the operator completely free to set up empties or what have you. The same company also makes a small portable vacuum filler for general filling jobs. A feature of this machine is that a special nozzle is provided for heavy liquids.

Refrigeration

A couple of years ago we had a bit of a story on the cooling of creams giving the results of tests we had conducted. One of these tests (and incidentally the most successful one) called for the passage of the filled jars through a cold water bath. This principle is now in operation at one local plant and another installation is now being made. These units however do not utilize a rubber conveyor belt passing through a shallow through; they simply provide a chilled water bath into which the jars on trays are immersed for a few minutes. Naturally the jars are not entirely covered with the water. The outfit building this equipment tells us that several other types are being tested. This trade is certainly going in for refrigeration equipment: mouth washes, perfumes, shaving cream, toilet creams, ointments, lotions, medicines, etc. What next?

Vacuum Mixing

Some time ago we had an article in this department on the vacuum mixer as applied to the extraction of crude drugs. At that time it was indicated that the vacuum principle would inevitably be extended to other products. A mixing unit has now been placed on the market for handling liquids like pastes, ointments, creams, liquid soaps and materials of similar viscosity. This mixer is a high speed unit, which (because of provision for vacuum) enables you to mix viscous products like vanishing cream, shaving cream and ointments at very high speed without incorporating air. Because of the fact that the products are made under vacuum, the volatilization of perfume is reduced to a minimum, and, in cases where the mixer is operated at full capacity, there is no perfume lost at all. Naturally, the continued maintenance of suction on a mass containing highly volatile constituents like perfume oils would result in the abstraction of these materials just as though they were put through a still. In this unit this condition is obviated because, when the vacuum is drawn, a valve is closed and the vacuum pump shut down. This provides for the withdrawal of all air. As the unit has, of course, an air tight cover, a relatively high vacuum is maintained for a considerable period and it can be restored to maximum at will.

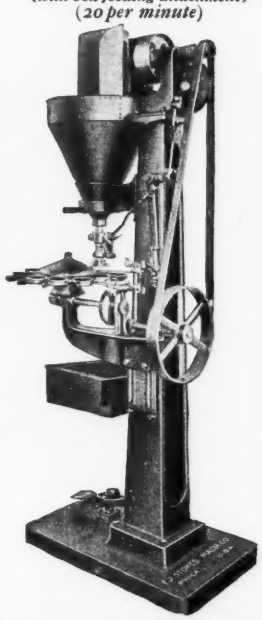
The unit is so flexible that it may be obtained without provision for vacuum; it may be obtained with or without a steam jacket. The variety of products to which this unit has already been applied is very wide. It has been used for the manufacture of many types of liquid medicines, cosmetic lotions and soaps. It has been used in place of a crutcher for mixing fine toilet soap. It has also been used for making ointments for creams.

The construction of the unit is such that a number of possible applications at once suggest themselves. It might be used in maceration processes where the menstruum would be present in sufficient quantity to give the mass a semi-liquid or liquid consistency. Thus, extraction processes could be carried out under vacuum under conditions which should permit *complete* extraction of the active principle of the crude drug without loss of strength. When the operation is completed, the saturated menstruum could be drawn off and more solvent added in order to wash the dregs. This could then be run off and remaining solvent in the exhausted dregs recovered by means of the vacuum pump and a condenser, thus completing the extraction process and the recovery of the solvent in one unit of equipment. Such a set-up would require, in addition to the standard unit, the vacuum pump, a condenser, and a strainer for the discharge outlet.

This machine combines the principles of a colloid mill and mixer in that, within the tank there is a central unit which

1927

No. 14 Powder Filler
(with box feeding attachment)
(20 per minute)



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TUBE FILLERS
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MIXERS
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WATER STILLS
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DRYING CLOSETS
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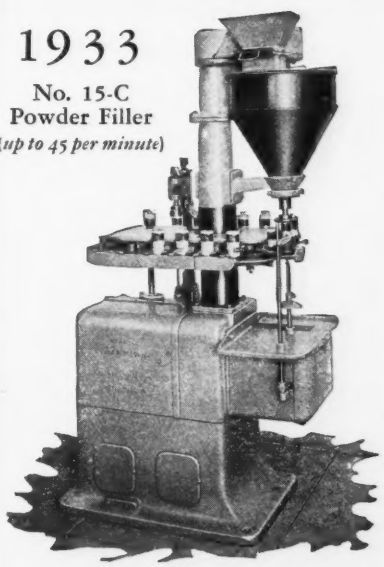
Add . . .
. . . A NEW POWDER FILLER

1933

No. 15-C
Powder Filler
(up to 45 per minute)



THIS new powder filler—combining accuracy, speed, cleanliness, flexibility and durability in the "right" proportions—is one of the 15 Series. Along with a complete line of tube and jar fillers, it is fully described in our new catalog, a copy of which we shall be glad to send you on request.

During the past few years we have increased our designing and engineering staff and set it to work redesigning and remodelling all the equipment in our line.

Now that you may want to replace or supplement equipment with modern, effective, well-made and well designed units, we are in a better position than ever before to serve you.

We have also set up a special laboratory division to advise with our customers in the development of manufacturing technique.

Let us submit our recommendation on your next equipment need.

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New York Office—103 Park Ave. Chicago Office—307 N. Michigan Ave.
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functions as a stator suspended above a high speed disc which functions as a rotor. Naturally, the clearance between the rotating disc and the stator is not as close as it is in a colloid mill and the speed of the rotor is not so great. This recommends it is in the processing of those emulsions which cannot be put through a colloid mill because of the heat generated and also those which do not require extremely fine subdivision of particle size. Another feature of this unit which recommends it still further is that the entire batch is constantly in contact with the mixing element, so that that portion which passes between the rotor and the stator is continuously returned again to the batch.

When the material passes between the stator and rotor, it revolves at very high speed around the central element and is cut in three places and returned to the stator; thus a very effective fluxing action is obtained.

Special rotors and stators are provided for different products. The lighter the product the smaller are the clearances allowed and the narrower are the channels in the stator.

We used this machine for mixing lotions, creams, and what is even more interesting, we used it for mixing face powders. Later on when additional experiments are completed we shall have another story for you.

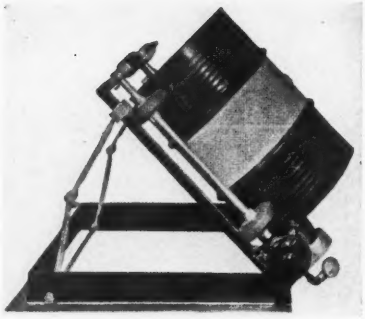
This unit comes in standard sizes, ranging from one to a thousand gallons and can be obtained with or without a steam jacket; with or without cooling connections; with or without vacuum apparatus. The price of the unit is so extremely reasonable as to warrant junking old equipment. A testing laboratory is maintained by the builders of this equipment and they will be glad to run tests and to quote prices on your materials. The address is Abbe Engineering Co., 56 Church St., N. Y. C.

Filter Presses

We received a very attractive catalog from T. Shriver of Harrison, New Jersey, describing this company's line of Filter Presses. In addition to a vast number of illustrations, this catalog contains numerous cross-section drawings showing the method of operating the equipment. There is also included a lot of practical information on the operation of the Filter Press and a story of the Shriver testing laboratory, which is maintained for the benefit of their customers.

Tablet Making

We received today the third of the series of catalogs which F. J. Stokes Machine Co., Olney P. O., Phila., Pa., are issuing. This attractive brochure is devoted to the manufacture of tablets. It comes very close to being our ideal of a machinery catalog, and is profusely illustrated with photographs of the various units of equipment and of numerous plant installations. In the text accompanying each illustration you are given the name of the machine and you are told exactly what it is used for and how to operate it. Even though the presentation of the catalog is non-technical, so that the average man can obtain from it all that he needs to know about the equipment required and how to order it, the necessary engineering details are also included at the end of each section. Throughout the book are numerous hints on practical tablet making, and you are told about the testing service which is rendered by the Stokes experimental laboratory. What we like especially is that Stokes illustrates all types of equipment instead of the huge mass production units only. Hence, the very small manufacturer can find equipment suited to his requirements and purse.



Revolving Drum

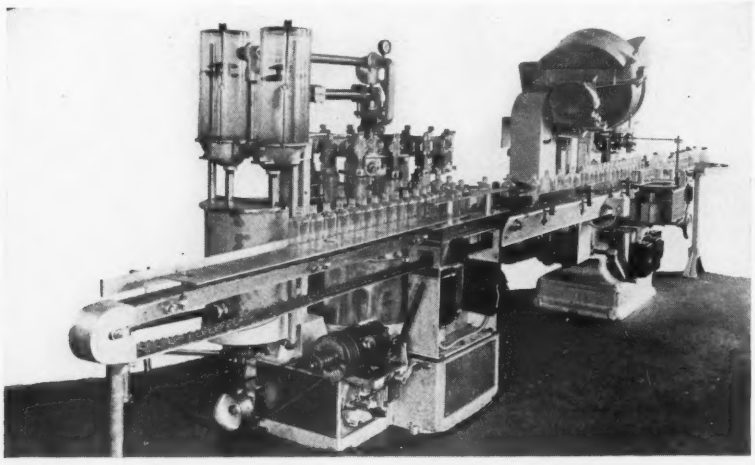
The back of the book is devoted to miscellaneous equipment connected with tablet making such as granulators, drying closets, mixers, coating and polishing pans, steam-jacketed kettles, pony mixers, etc. In addition, several pages are devoted to Stokes general equipment such as stills, dryers, tube fillers, face powder fillers, conveyers, bottle washers, etc. Every one of you should have this catalog in your file. Send now for No. 33T.

Stokes and Smith

Your attention is called to the new estimating service by Stokes and Smith Company of Philadelphia: S & S will tell you how much a given type of package will cost you to produce on their machines. For instance in a bulletin called "The Costs of a Thousand and One Packages," S & S takes the case of a two pound tight wrapped salt drum and gives the detailed cost for container, labor, expense, glue etc. It would be an invaluable record if such data could be accumulated and published for all types of packages.

Filling Powders

We are often asked by correspondents where a hand powder filler can be obtained. Unfortunately we know of none. This problem of filling small batches of different kinds of powders and crystalline substances seems to be pretty general, not only among small manufacturers but large ones as well. For face powder, depilatory and nail polish powder, we've been pretty successful (although a bit dusty), with a filling box. This box is built to hold about a gross of containers and is made about twice as deep as the containers. A piece of veneerwood perforated to correspond with the size of the mouth of each container is laid over them, and fastened tightly into place. Then the powder is dumped on the veneerwood platform and scraped around until it passes through the perforations into the packages. The veneerwood platform keeps the packages fairly clean. A wooden plunger assures a solid pack. The operator tamps the powder down into each package just enough to prevent settling later on. Such



Pneumatic Rotary Filler

No. 2 Rotary Tablet Machine

New and Improved!

We have no yearly models—but improvements and refinements are being constantly added to Colton machines.

There are over five hundred Colton Rotaries in use.

Superior design, sturdy construction and ease in operation have made this possible.

The No. 2 Rotary Tablet Machine has such desirable features as *positive pressure*, eliminating varying thicknesses of tablets; *hardened steel gear drive*, eliminating frequent replacement of worms used on other makes, and *sliding upper punch holders*, to hold the punches rigidly, enabling the manufacture of special shaped tablets most satisfactorily.

Write for Catalogs.

ARTHUR COLTON COMPANY

2620 East Jefferson Ave.

Detroit, Michigan

Automatic Rotary Vacuum Filler

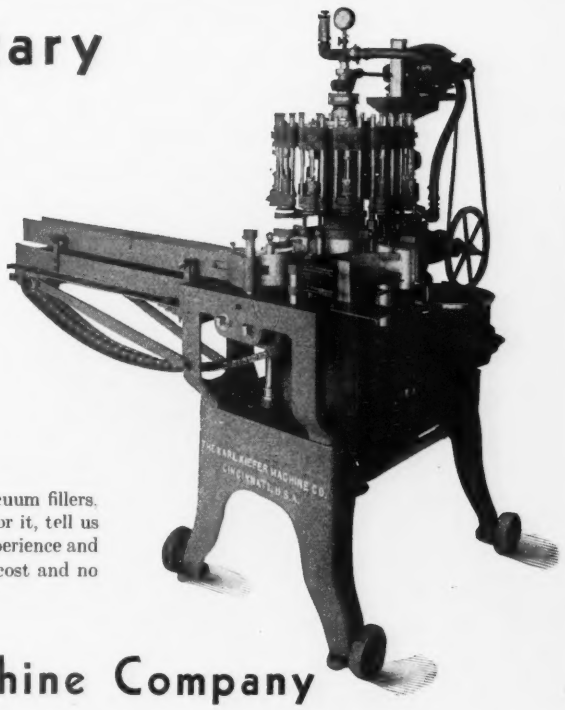
for perfumes, tonics, shampoos, antiseptics, lotions, medicines, emulsions, extracts, syrups, inks, oils, etc.

All are bottled neatly, accurately, rapidly, whether light or heavy—foamy or sticky. Regular or sprinkler top bottles handled perfectly.

Made in six sizes. Capacity, up to 150 bottles a minute.

Construction: stainless steel, pure nickel, monel metal, or bronze, as desired.

Then there are Kiefer semi-automatic, and hand-fed vacuum fillers, all types and sizes—see our catalog. When you write for it, tell us what your work is and let us see if, with our 35 years' experience and with our modern developments, we can help you. No cost and no obligation.



The Karl Kiefer Machine Company

Cincinnati, Ohio

a device would certainly not be as practical or as clean as a small hand filler. Our guess is that one of the big firms is working on one right now.

Homogenizer

Manton Gaulin exhibited a compact little homogenizer at the Chemical Show which, although it is their smallest unit, producer in sufficiently large volume to suit the needs of most makers. The unit is now definitely in the low priced field. Manton Gaulin is one of the oldest firms in the business and have several installations in the trade on mineral oil and agar and cod liver oil emulsions among them being those at Petrolagar Laboratories and Eli Lilly.

Liquid Polisher

We have an inquiry from an old friend who wants to know if we've ever heard of a machine for polishing liquids *after* they have been filtered. This machine is said to impart a high lustre and is not any kind of filter. We confess our ignorance completely; this inquiry certainly tied a can on our tail. But for the sake of face saving we'd like any one of you who has heard of such a machine to throw out the life line to us.

Vitamin Concentrate Plant

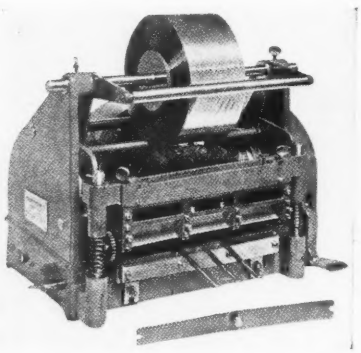
We are glad to be able to show this month a photograph of the concentrating plant of Health Products Co. at Newark, N. J. This is one of the finest plants of its kind in the world, and undoubtedly one of the cleanest. Here the raw cod liver oil is saponified to obtain the vitamin content which is contained in the unsaponificble residue. Your attention is called to the staggered arrangement of the processing tanks which provides gravity flow without increasing head-room unduly. The equipment throughout is glass-lined and the entire plant is painted in bright enamel. When you visit this plant you are struck by the fact that, although cod liver oil is being processed, none of it can be smelled.

Hermetic Tubes

F. J. Stokes Machine Co. has developed what is said to be the first hermetic seal for a clipless tube. The seal has been trade-marked, Hermatite. Stokes showed us some tubes which had been subjected to air pressure under water until they burst. In no case it was said did any bubbles come from the seal and in no case did any of the seals burst. The side wall of the tube gave out when the pressure was great enough, but the seal held without leaking. John Silver tells us that this closure will be available on all Stokes tube equipment including hand operated units.

Hand Wrapper

"Wrapade" is the name of the little device illustrated herewith. This machine is designed to facilitate the wrapping of packages and bottles. It draws the transparent cellulose, glassine or other paper from a roll; cuts it off at the required length and glues one edge. Hence,



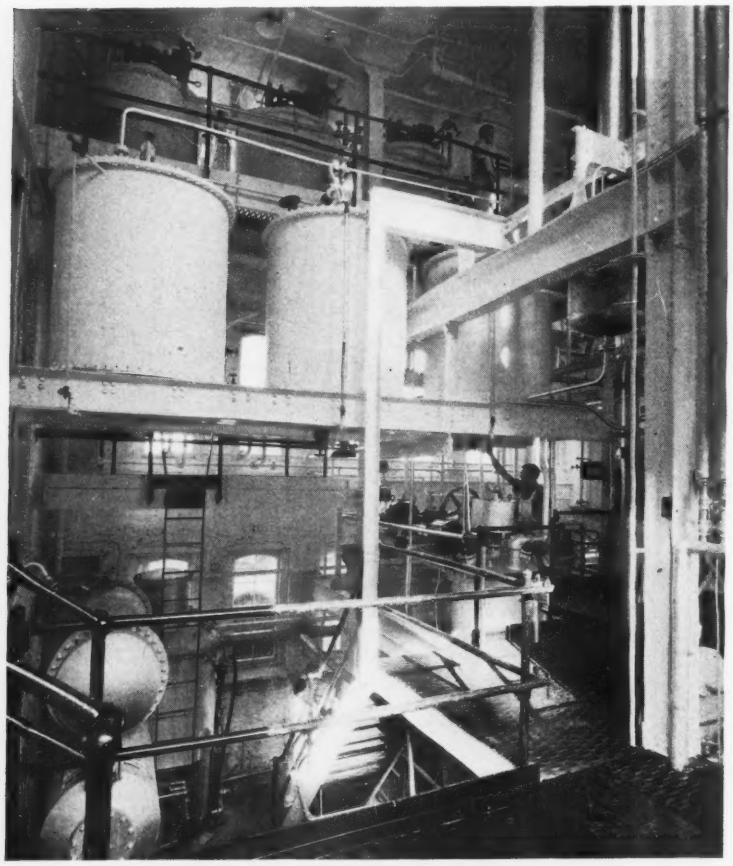
the operation of hand wrapping is considerably accelerated. The operator trips a bar which delivers the glued sheet to her. She then places this around the package and folds or twists the ends.

Pneumatic's Rotary Vacuum Filler

Pneumatic Scale Corp. exhibited for the first time at the Chemical Show their new, fully automatic rotary vacuum filler. The machine will fill virtually all types of bottles and cans from one ounce to a quart. Depending upon the size of the container, the machine will fill from fifty to one hundred and twenty containers per minute. An operator is required to feed the containers to the machine, after which they are completed automatically. The unit is equipped with a double-bowl manifold overflow system, the over-flowing liquid being led back into the supply system by gravity by means of a positive overflow control mechanism. It is claimed that drip is absolutely eliminated.

Production Lab.

We are busily engaged at the moment in establishing what we think will be the first production lab in the trade. When we're finished with it we hope to have laboratory models of all types of equipment used in the production of drugs and cosmetics. We also hope to have eventually as much packaging machinery as possible. Such equipment will enable us to carry out research on miniature models of production equipment. This will not only save time and labor but it should eliminate the necessity for adjusting laboratory formulas to the production scale. We'd welcome suggestions pertaining to small equipment units.



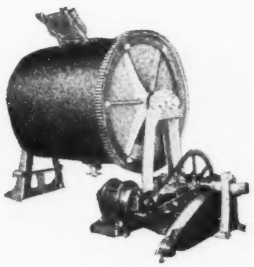
Vitamin Concentrate Plant

HERE'S HOW!

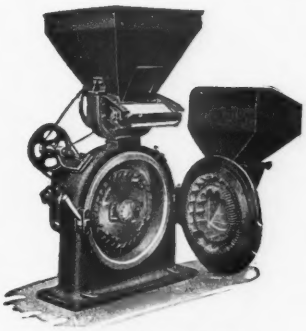
We're glad that Christmas *spirit* will mean so much more this year . . . We are particularly glad that ABBE FACE POWDER EQUIPMENT helped to establish sales records this year for *leading brands* of face powder.

Here's How! ABBE PEBBLE MILLS impart that smooth, luxurious feeling and that *perfect* blending of flattering colors. ABBE RAPID MILLS produce *superfine* powder *continuously* at very high speed. ABBE MIDGET AND BLUTERGESS TURBINE SIFTERS impart that misty fineness which defies the Bite Test. *These qualities boost sales.* ABBE builds equipment for the small as well as the large manufacturer.

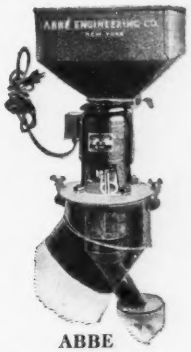
HERE ARE THE MACHINES THAT MAKE GOOD FACE POWDER BETTER



ABBE PEBBLE MILL



ABBE RAPID MILL



ABBE MIDGET SIFTER

Write Now

ABBE ENGINEERING CO., 56 Church St., New York City

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LABELS

ENGRAVED AND EMBOSSED

Faithful Service Since 1881

JOHN HORN

837 Tenth Ave. New York

Tablet Counting Machinery

COATED AND UNCOATED TYPES

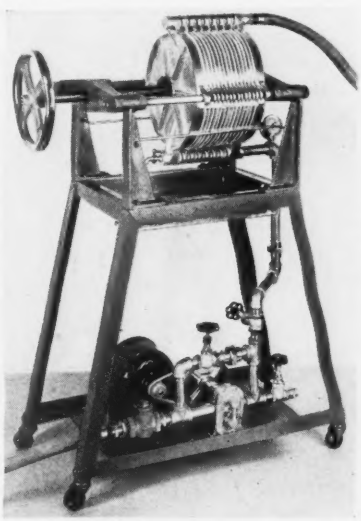
Accurate, Speedy and Visible Count without Handling or Chipping

Send sample container and tablets for quotation

JOHN W. AYERS & SON

Bloomfield, N. J.

Manufacturers of Tablet Counting and Filling Machinery since 1883



ERTEL MODEL "EW" FILTER WITH HAND WHEEL

Simplicity, Price, Economy, Workmanship and Speed, plus Brilliancy to your liquid, make Ertel filters and filter sheets the most desirable.

Manufacturers of portable mixers, glass-lined tanks, stainless steel tanks, portable bottle fillers, pumps, etc.

ERTEL ENGINEERING CORPORATION

108 EAST SIXTEENTH STREET

NEW YORK • • N. Y.

Shaving Creams

(*Continued from page 562*)

No. 4.

Olive oil	2. %
Stearic acid T. P.	25. "
Coconut oil, cochin	8. "
Potassium hydroxide 42°Be	18. "
Sodium hydroxide 42°Be	2.5 "
Water	39. "
Boric acid	1.5 "
Glycerin	3.5 "
Perfume	.5 "
	100.0%

Procedure: Melt one-half of the stearic acid and coconut oil in one kettle. Melt the remainder of the stearic acid and olive oil in another. Heat the water; add the boric acid and glycerin and when dissolved add the potassium and sodium hydroxides. Strain the stearic acid, coconut oil mixture into a mixing kettle; start the agitator and run in the alkali solution. Keep the heat on for one-half hour and then add the stearic acid, olive oil mixture. Mix in the perfume; age for three days.

No. 5.

Stearic acid T. P.	25.00%
Coconut oil, cochin	5.13 "
Sodium cholate	.12 "
Lecithin	1. "
Potassium hydroxide 50° Be	21.15 "
Water	42.5 "
Glycerin	4.6 "
Perfume	.5 "
	100.00%

Procedure: Melt one-half of the stearic acid and coconut oil in one kettle and the remainder of the stearic acid and lecithin in another. Dissolve the sodium cholate in the water and glycerin; then proceed with the mixing of the soap as before.

No. 6.

Stearic acid T. P.	28.5 %
Cetyl alcohol	4. "
Sodium cholate	.20 "
Coconut oil, cochin	12.80 "
Potassium hydroxide 85%	9.57 "
Sodium hydroxide 85%	.63 "
Boric acid	1.5 "
Glycerin	5. "
Water	37.30 "
Perfume	.5 "
	100.00%

Procedure: Melt one-half of the stearic acid and the coconut oil in one kettle, and the remainder of the stearic acid and cetyl alcohol in another. Heat the water; dissolve in it the boric acid; and add the glycerin and sodium cholate. Then add the alkalies and proceed as before.

Avocado Oil in Cosmetics

(*Continued from page 536*)

possible temperature, in order to leave the vitamin content unaffected.

The fact that Avocado oil is the highest priced oil used in cosmetics has proved of benefit to manufacturers who use the product, as it stamps their cosmetics as "quality" items. Purchasers are familiar with the high nutritive value of the Avocado pear, and this metal association is obvious.

Manufacturers anxious to improve their products or add new items to their lines are displaying an increasing interest in avocado preparations. In California the oil has become an important factor in the cosmetic industry. Inquiries from all parts of the United States tell of the rapidly increasing popularity of avocado cosmetics.

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[1]R. F. Eaton—Calavo Grower Chemist.

[2]George S. Jamieson, W. F. Baughman and Raymond M. Hann, July 1928 issue, Oil, Wax, and Fat Industry.

[3]Dr. Leroy S. Weatherby, Professor in Chemistry; University of Southern California. California Avocado Association Year Book, 1932-33.

*Chemist, Hawaiian Avocado Co., Ltd.

HAWAIIAN AVOCADO OIL ANALYSIS

By Robert M. Loveland*

The specimen of oil was light and greenish brown in color. When cooled, the sample started to cloud at 45°F. Upon analysis the following information was obtained.

Sp. Gr. at 60°F.	0.908%
Sap. No.	196.7 "
Acetyl No.	19.6 "
Iodine No. Hanus	65.3 "
Free Fatty Acids (Cal. as Oleic)	4.2 "
Unsap. Matter	1.0 "
Comp. of Either Extract:	
Glyceride of Oleic acid	77.3 %
Linoleic acid	10.8 "
Myristic	trace
Palmitic	6.9 "
Stearic	0.6 "
Arachidic	trace
Unsap. Matter	1.6 "
Sp. Gr. .9132	25°/25°
Ref. Index 1.47	(20)

Correction

In an article on Cough Mixtures published in the November issue a regrettable error was made in reference to the compounds used in the several formulas. It was stated that *all* of the compounds recommended are U. S. P. They are not. Some of them are U. S. P., others are N. F. and some are non-official. There were two printer's errors to which attention is called. In the second formula the item, "Compound glycerin mixture" should have read "Compound glycyrrhiza mixture." In formula No. 8 the item quotes, "Spirits of caroph" which should have read "Oil of caryoph" (Oil of cloves).

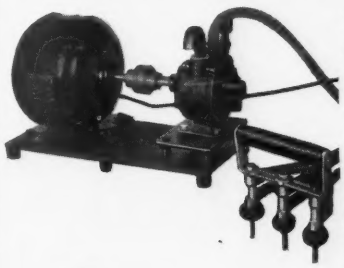
Compare your

Lipsticks
Rouges
Mascara
Powders

and other cosmetics, both as to quality and price, with those produced by Sterling. You, too, may find it more economical to buy from us than from your present source. Or, perhaps, if you are considering manufacturing yourself, you may find that Sterling's quantity production, is considerably cheaper than your own production costs. **Our prices will save you money and our quality bring you repeat sales.**

STERLING MANUFACTURING CO.
BELLEVILLE, N. J.

HIGHEST SPEED PORTABLE VACUUM BOTTLE FILLER



The Rodgers Portable Vacuum Bottle Fillers are made in compact units, filling all sizes of bottles from one ounce to one quart capacity, at the rate of up to 60 per minute, according to size.

They are adjustable and fill to any predetermined level. They reject imperfect bottles, are simple in operation, and operate from your light socket. Units are shipped complete with hose, nozzles, motor and cord, ready to plug into your light socket.

The Fastest Hand Tube Filler

for Large or Small Manufacturers

Our No. 6A Hand Operated Tube or Jar Filler, illustrated here, can also be supplied with direct motor drive and clutch.

We also manufacture hand operated and motor driven Tube Closing, Clipping and Clipless Machines, Package and Powder Box Filling Machines, Glass-Lined Tanks, Conveyors, Pony Mixers & Ointment Mills.

Send for new Catalog No. 5

GEORGE G. RODGERS CO.
183 VARICK STREET — **NEW YORK CITY**
WAlker 5-6892 — **Established 1890**

Books - OF IMPORTANCE TO DRUG AND COSMETIC MANUFACTURERS

Chemistry of Essential Oils and Artificial Perfumes (Parry) Vol. I	$12.00
Vol. II	8.00
Cosmetics (Koller)	3.50
Perfumes and Cosmetics (Askinson)	6.00
Perfumes, Cosmetics, and Soaps (Poucher) Fourth Edition Vol. I	6.50
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Preparation of Perfumes and Cosmetics (Durvelle)	$8.00
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Remington's Practice of Pharmacy	10.00
Scientific American Cyclopedia of Formulas	5.50
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Psyllium Seed—The Latest Laxative (Montague)	2.00

The Drug and Cosmetic Industry
101 WEST 31st STREET ... NEW YORK CITY
Please remit with order — **Consult our Book Dept.**

Readers' Questions

(*Continued from page 540*)

Co., 2604 E. Jefferson Ave., Detroit, Mich. Both of these firms supply all the necessary equipment and maintain laboratories for testing purposes.

Facial Mask

We would appreciate a formula for a facial mask of the type which is applied with a brush, allowed to remain on the skin for a few minutes, and then peeled off. We would also like a formula for a bleaching cream. We are old subscribers to your magazine and look forward each month to your interesting items. We have found much valuable information which we have put to good use.—Chicago.

Experiment with the following formulas:

Clay

Colloidal clay	50.00%
Citric acid	5. "
Hydrogen peroxide	5. "
Magnesium sulfate	5. "
Glycerin	10. "
Water	25. "
	100.00%

Bleaching Cream

Petrolatum	46.00%
Spermaceti	20. "
Mineral oil	21. "
Ammoniated mercury	6. "
Bismuth subnitrate	6. "
Perfume	1. "
	100.00%

Sun-Tan Oil

I should like to obtain a formula for a sun-tan oil. The type I want is that which will aid in tanning the skin without causing sunburn when the body is exposed to the sun rays.—Philadelphia.

Experiment with the following:

Quinine hydrochloride	3.00%
Peanut oil	96.5 "
Color oil soluble brown q.s.	00.0 "
Perfume	.5 "
	100.00%

Foot Powder

We are going to market a foot powder for which we claim that it will relieve tired, swollen, aching, and blistered feet. Do you think there is anything in this statement to which the Department would be likely to object? Winona, Minn.

Our opinion is that the statement is faulty because of the word "aching." Aching usually is traceable to a bone condition or disease, in which case, obviously, the Department would be likely to take exception. We advise you to retain a competent medical director who is in touch with the Department and can advise you regarding to these matters.

Penetration of Creams

We have been informed that we can no longer use the word "penetrate" in connection with our tissue cream. We did not know of any ruling to this effect and would like to be advised in regard to the matter? Detroit.

We think the Department would very probably object to the word "penetrate" because it has not yet been demonstrated that skin can be penetrated by lanolin type tissue creams. Some manufacturers have avoided skin penetrating creams by stating that their product will penetrate the *pores*. As a rule, the Department takes the position that you cannot make any claim for a product which has not been fully substantiated by clinical tests.

Deodorant Claims

We are planning to put on the market a deodorant which contains some new and very powerful ingredients whose deodorizing properties have been carefully tested. We have tested this product against other deodorants on the market and found it to be superior. We claim for it that it will eliminate all body and skin odors. We have been told that we can't make such a claim. Fort Worth.

Regardless of how powerful your deodorant may be, you would have difficulties in concealing odors due to diseased conditions; as for instance cancerous sores. It would be sufficient to say that your deodorant eliminates odor due to perspiration, or normal body odors.

Made in America

We have been marketing a product for a good many years which was originated in Germany. For the last two years, however, we entered into an arrangement with an American firm to manufacture the product on each side of the water. Do we have to change our package in order to make this fact clear? Los Angeles.

Yes, the package you sent us gives us the impression that the product was not only originated in Germany but is being made there and only distributed by you. You can say that the product was originated in Germany and manufactured by your American company for you.

Poison Label

We manufacture a product containing a chloral derivative and on our label we make the statement that it contains 50 grains per ounce. Since we have declared the formula are we obliged to make any further statement? Atlanta.

Yes, because the ruling of the Department is that anything containing more than 24 grains of chloral derivative per ounce must be marked POISON.

Vitamin D Units

Can you tell me what is the difference between a Steenbock unit for Vitamin D., and an A. D. M. A. unit? Chicago.

The Steenbock unit is defined as the "total amount of vitamin D necessary to produce a narrow and continuous line of calcium deposits in the metaphyses of the distal ends of the radii and ulnae of standard rachitic rats under standard feeding conditions." The A. D. M. A. unit is the average daily dose of Vitamin D to produce the same healing effect as defined in the Steenbock unit. Therefore, since the feeding is continued for ten days in either test, the Steenbock unit is equivalent to 10 A. D. M. A. units.

Analgesic Mint

I would like some information regarding a preparation for the treatment of colds, headache and other pains. I would like to know if it is possible to compound a clove mint with the following ingredients: tincture of aconite, caffeine and phenacetin. Jackson, Tenn.

It is possible but it would seem to us to be dangerous and impractical. Aconite is a very powerful poison when used in excess of .03 grams per dose. Caffeine is a nerve stimulant with an exceedingly bitter taste. Phenacetin is less bitter and probably more effective for your purpose. The very idea of a mint implies dissolution of the medicaments in the mouth in which case the practicability of such bitter substances is open to serious question. And finally, although all of these substances are good analgesics, none of them is especially to be recommended for colds. Frankly we don't think much of this idea. We'd recommend, rather, a mint containing some more generally used and less potent drug like acetylsalicylic acid, which would relieve cold and also allay pain.

To ABSORPTION BASE *Users*

A good so-called absorption or oxycholesterin base is one which does not contain any free lanolin and which, as a result, is odorless.

Protegin X, our absorption base, contains the cholesterin without any free lanolin. It is odorless! It is best noted for its high absorbability.

Let us send you a sample and suggested formulae.

PRESERVATIVES and ANTISEPTICS

NIPAGIN M and NIPASOL M. Phenol coefficients: 3 and 17. Neutral, odorless and non-irritating.

Recommended for their high efficiency in agar emulsions, gum solutions, eye washes, hair waving preparations, vaginal douches, vegetable oil emulsions, skin creams, and in any products which require an antiseptic or preservative. Samples and complete particulars will be sent upon request.

Th. Goldschmidt Corp.

70 Pine Street New York

- *LABEL CLAIMS?*
- *COMPOSITION?*
- *CAN IT BE IMPROVED?*
- *DOES IT COMPLY WITH SPECIFICATIONS?*

Food, Drug and Cosmetic Problems Now Take Precedence

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39 WEST 38TH STREET NEW YORK, N. Y.

Tugwell Bill Goes To Bat

(*Continued from page 530*)

gives to the Secretary absolute power to disregard the findings of such scientific bodies as the U.S.P. and N.F. Revision Committees, which committees have the right to change the tests during the ten year intervals of complete revision, and which committees are working on these standards 365 days during every year.

Section 4 (d) is inadvertant, Dr. Beal contended because products from nature are not uniform and it is sometimes necessary to reduce their strength by adding other substances to them. He suggested the word "injuriously" be inserted to make the paragraph read:

"If any substance has been mixed or packed therewith so as to *injuriously* reduce its quality or strength."

As an example he spoke of opium which is supposed to contain 10 per cent. of alkaloids, where as a matter of fact it rarely contains exactly that amount. It must be brought to 10 per cent., however, before it can be used.

When liver extract was introduced about five years ago for treatment of pernicious anemia, it would have been impossible to find medical opinion in favor of it because it had never been used. Ipecac was used a great many years ago for treatment of amebic dysentary, and then the medical profession completely dropped it for many years. Now ipecac is being used most enthusiastically by physicians for this purpose.

Dr. Beal stated that there is no known method of measuring therapeutic action. Results of a drug on a guinea pig tell nothing but what effect the drug has on a guinea pig. Therefore, it is impossible to determine in advance whether a new product will furnish an effective treatment or not.

In Section 8 (b) Dr. Beal suggested the placing of the words "habit-forming" before the word "narcotic" since the paragraph calls for a warning against habit-forming drugs on the label. Many narcotics are not habit-forming, he said. The authority given to the Secretary in this paragraph to designate as hypnotics and narcotics any substances not named in the paragraph is too broad, said Dr. Beal, the products covered should all be stated in the bill.

With reference to the "common name" required on the label under Section 8 (e) (1), Dr. Beal recited about eight different names for a single drug, each of the names being the common name in a certain state of the Union.

With reference to disclosure of formulas Dr. Beal declared that the only valid argument in favor of this provision had not been given. This argument, he said, was that when the patient finally went to a physician, the physician should be able to know what the patient had been taking previously. An argument against formula disclosure is that the patient only becomes curious and goes to his druggist to see the various ingredients, and to find out all about them. This does the patient no particular good. But it does lead to the discovery on the part of the user that the formulas are mostly U. S. P. and N. F. formulas, and that most of the physician's prescriptions are the same things. The physician could get around this, said Dr. Beal, by dispensing his own medicines, but the druggist would still have his troubles. Also it would lead to piracy because the druggist could show the buyer that the ingredients on the two labels were the same. Dr. Beal felt that the public would benefit from the publication of formulas, but did not think the benefit important enough to overcome other considerations. He thought that filing of the formula with an executive of the Department would be sufficient.

Section 9 (c) which lists the diseases for which no product can be advertised is all right so far as the list of diseases is concerned, said Dr. Beal, but the right which is given to the Secretary in the final part of the paragraph is entirely wrong. This power, said Dr. Beal, is very adroitly covered up. The reader first reads the list of diseases which he knows very well cannot be cured by drugs, and then when he is sufficiently aroused by the thought that anyone would dare to advertise a product for any of these diseases, blanket authority is given to the Secretary to add any other diseases which he desires.

Dr. Beal expressed his personal feeling that he would have every illness diagnosed by a physician and then take his prescription and have it filled. But for himself he said this was impossible since he lives 42 miles from the nearest registered pharmacist and 18 miles from the nearest physician.

As to control of cosmetics under Section 5, Dr. Beal declared that the statements were too general since the whole matter was turned over to the Secretary without any restrictions being placed upon him.

Section (a) on misbranding is entirely too ambiguous, said Dr. Beal, for the reason that creation of a misleading impression is quite simple when differences of opinion exist not only between different schools of medicine, but also between practitioners in the same school of medicine. The paragraph makes the Secretary the medical authority of the country since he can accept or reject any opinions of the medical profession which he chooses.

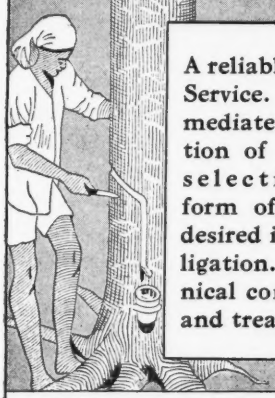
The language of Section 8 (a) is defective, said Dr. Beal, since the words disease, specific, cure, and palliative have different meanings in different schools of medicine. In fact the paragraph makes use of the term "specific cure" which has no meaning in any school of medicine. The terms must be more clearly defined for use in a punitive statute. In alapathic medicine there are only four, five or six specifics. The word palliative is too indefinite since cold water is a palliative for a burn, an analgesic is a palliative for a headache. A drug might be a very proper part of a treatment of a disease but not a cure.

With reference to section 8 (a) (2) Dr. Beal wanted to know who can find the general medical opinion, and

NORMAL — CONCENTRATED
PROCESSED

Heveatex

RUBBER LATEX



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Hair Wave Sets
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may be secured through the use of GUM PARAGON—a pure white gum giving almost water white solutions.

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25 lbs.	34c per lb.
50 lbs.	33c per lb.
100 lbs.	32c per lb.
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Trial pound sent parcel post prepaid—$1. All quotations f.o.b. New York.

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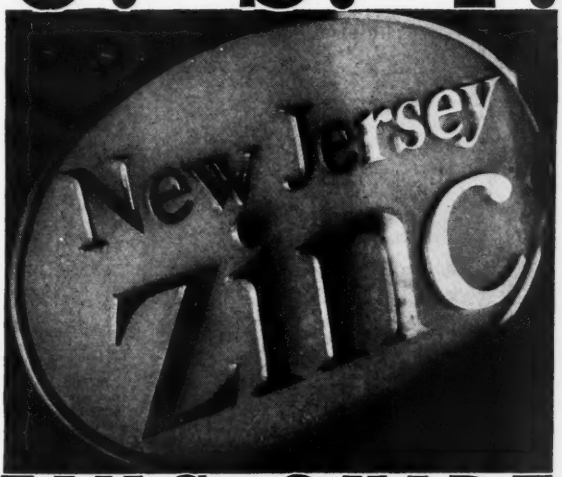

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Senator Copeland agreed that there is no such thing and that a 51 per cent. agreement of opinion would be high. Dr. Beal stated that whiskey and brandy were voted out of the U. S. P. by the medical profession in 1910 only to be voted back in the next revision in 1920.

At the opening of the second day Senator Copeland called for those who merely wished to file briefs. These were filed by Harriett Hubbard Ayer, the American Medical Association, Delson Chemical Company, the American Drug Manufacturers' Association.

Charles Wesley Dunn, counsel for the Associated Grocery Manufacturers of America and the American Pharmaceutical Manufacturers' Association, stated that Mr. Campbell is right his major premise that the present bill is seriously defective and should be corrected. His objections twofold, first, that the language used in the bill is too broad, and second, that the powers granted are unsound. He stated in answer to a question by Senator Copeland, that the act reverses the ordinary procedure of law that has been part of every piece of legislation in that under this act the accused would be assumed guilty and the burden of proof would be placed upon the accused instead of upon the Government where it should be placed.

Dr. John F. Anderson, of E. R. Squibb & Sons, stated that they were in favor of the purposes of the bill but would like to see the provisions surrounding advertising control modified. Also he wanted control of counterfeiting of drug products included in the bill. He thought if there were to be extensive amendments to the bill it would be better to write an entirely new bill.

Harry B. Thompson, counsel for the Proprietary Association, thought that the provisions in the bill calling for formula disclosure should not be allowed to stand. He also told of abuses of authority by enforcement officials under the present act.

Houston Thompson, counsel for the estate of Carl H. White, founder of Health Products Company, asked for an amendment to the definitions of foods and drugs so as to permit the sale of such products as Feen-A-Mint and White's Concentrate of Cod Liver Oil and which were combinations of foods and drugs.

W. Bruce Philip, counsel for the N. A. R. D., was opposed to the skeleton form of the measure saying that druggists were too small to fight for their rights. He asked for a law which is definite and which can be understood. He indicated that under the advertising control provisions of the act, ethical products could not be advertised in the retail drug journals since they are not scientific publications, while they could be advertised in the "Scientific American," and possibly in "Popular Mechanics."

Col. J. H. Hayes, appearing for Stanco, Inc., Cheeseborough Manufacturing Company, Daggett & Ramsdell, and Elizabeth Arden, was not apposed in principle, but felt that the act is too broad.

Dr. George W. Hoover, Washington consultant and former Chief of Drug Control in the Department offered an amendment to be added to the bill to care for minor violations. Under this amendment, the Department would be able to deal with minor cases in which no question of public health is involved, by merely calling the offender into conference and without resorting to court action as is now demanded by the terms of the act.

Donald J. Burke, of the George H. Lee Company, asked for revision of the act to provide two types of procedure, one of which would be punitive in which the public health were involved, and in which case it would be necessary fraud or intent to deceive. These cases, he said would not constitute over 10 per cent of the violations. Seventy-five per cent of the balance would be taken care of by conferences with the Department, and the other 15 per cent would represent honest differences of opinion which could be settled in court.

Northam Warren, speaking for the Associated Manufacturers of Toilet Articles, pleaded principally for protection of the export market for cosmetics, and asked that a bill not be passed which would make impossible exportation of articles which the foreign countries demanded. He then introduced Hugo Mock as counsel for the Association.

Mr. Mock asked for exemption of weight declaration on packages of 2 ounces or under, and particularly for lipsticks which, he said were not bought by weight. He asked that cosmetics which might be classified as drugs—shaving lotions which stop bleeding, etc.—be exempted from declaration of formulas since the listing of the ingredients of the perfume compound would mean nothing to the public and would reveal valuable trade secrets. He also asked that Section 5 (a) on adulteration of cosmetics being changed to read "If it is or may be injurious to the *average* user." This is to care for cases of allergy, Mr. Mock contended.

Clinton Robb, counsel for the United Medicine Manufacturers of America, upon question by Senator Copeland, stated that the proposed bill, if passed, would completely ruin the proprietary medicine industry. He said that even though a manufacturer were to attempt to build his business upon a prescription of a physician, he could be stopped by the authority and his business completely destroyed.

C. C. Parlin, of the National Publishers Association and the Curtis Publishing Company, endorsed the bill in principal but objected to those requirements which would work directly against advertising without benefiting the public. As an instance of this he insisted that the requirement of the law giving the Government the power to set up food standards should be changed to minimum standards only. This is essential because standards are now built up through advertising, and the creating of various standards by the government would only result in the breakdown of the entire news agencies of the country to the detriment of the public welfare. He further insisted that Government funds should not be expended to educate the public to various standards when the maintenance of minimum under the law is all that is necessary for adequate protection.

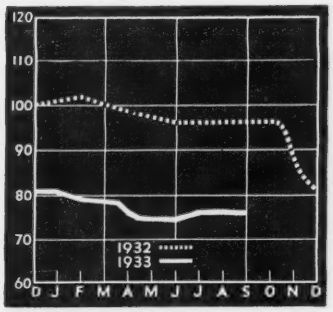
(*Continued on page 602*)

ADVERTISEMENTS—*Each article on this page is a paid advertisement.*

ALCOHOL NEWS

DECEMBER ★ A Monthly Series of Technical Articles for Chemists and Executives ★ 1933

ETHYL ALCOHOL PRODUCTION



(moving twelve-month averages, 1931=100)

ETHYL ALCOHOL PRODUCTION

		1933	1932
PRODUCTION			
1000 proof gals.	Jan.-Sept.	90,305	103,010
	Sept.	13,968	13,355
	Aug.	12,482	12,365
SALES			
1000 proof gals.	Jan.-Sept.	80,454	88,305
	Sept.	13,268	12,548
	Aug.	10,232	14,392

PROCESS AND DIRECT TAXES STRENGTHEN ALCOHOL PRICES

While the 20 cents per bushel processing tax on corn which was scheduled to go into effect on December 1 has been postponed, the 5 cent rate became operative in November and is still continued. This not only has added to the cost of producing grain alcohol but has brought out proposals that compensatory taxes be levied on materials competitive with corn and has created a very strong price position in the market for all grades of alcohol. Direct taxation on sales of pure alcohol has caused further complications by forcing the closing of plants in some sections of the country and making it problematical if future supplies will prove adequate for consuming needs.

RESTITUTION OF METHANOL AS DENATURANT FOR ALCOHOL ASKED

The Wood Chemical Institute has filed a requisition with the Bureau of Industrial Alcohol for the restitution of methanol as a denaturant for completely denatured alcohol effective with the repeal of prohibition.

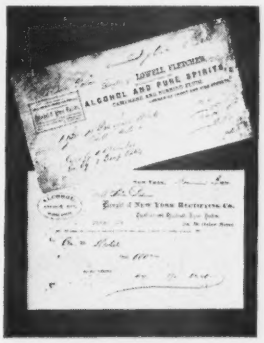
Methanol was removed from the list of denaturants, after many years of use, because of fatalities alleged to have resulted from the use in alcohol denatured with methanol as a beverage. The substituted denaturants are claimed to be less satisfactory by some branches of the trade.

In asking the return of methanol as a denaturant it is pointed out that before prohibition there were no complaints regarding the employment of methanol. An alternate formula for C. D. Alcohol using methanol is asked, so that purchasers may use either one they desire.

A process for the production of ethyl alcohol from "hydrol," a by-product of corn-sugar manufacture has been developed in the U.S.S.R. Until recently "hydrol" has given low yields, but by use of nutrient salts and yeast autolyzate, and effecting fermentation in the presence of active carbon, the yield has been greatly increased.

ALCOHOL PRICE, WITHOUT TAX, LOWER TODAY THAN IN 1857

Aside from the government tax, the price of pure alcohol is actually lower today than it was 76 years ago, as shown by an invoice issued in 1857.



The upper invoice of Lowell Fletcher, Cincinnati manufacturer of Alcohol and Pure Spirits is dated September 2, 1857 and was issued for "one barrel of 98 pure spirits 41 G at 60" and one barrel of distilled water which was sold for twenty-five cents. This indicates the price paid for pure alcohol was sixty cents a gallon. The square in the upper left hand corner is inscribed, "Having Three of the Latest Improved Stills I am Manufacturing Alcohol & Pure Spirits of as strong and pure quality as any manufactured in the United States."

The lower invoice, dated November 5th, 1874, was issued by the New York Rectifying Co., located at 10 Cedar Street, for one barrel of 188 proof pure alcohol at $1.92 per gallon. This indicates clearly that a tax had at that time been added to the purchase price.

Both invoices were issued to the House of Solon Palmer, the oldest American Perfumer, located at 374 Pearl Street, New York, where they have continuously had their offices for over fifty years.

REMEDY FOR PRECIPITATION IN DRUG PREPARATIONS FOUND

The tendency of certain drug and cosmetic preparations to precipitate on standing for any period of time in glass containers has long been a problem among manufacturers. Recent tests on this subject made in the U. S. I. laboratories in connection with service for customers showed that these precipitates were formed as the result of the passage of small amounts of alkaline material from the glass container into the preparation. These small amounts of alkali are sufficient to change the reaction of the product and cause the separation to occur.

If a preparation has deteriorated in this way it is often rendered unfit for use and cannot be sold. It was found that the solution could often be clarified again by the addition of a small crystal of citric acid to the bottle. Citric acid which is a suitable ingredient for cosmetics changes the reaction to the acid side and brings about the re-solution of the objectionable precipitate. This method of treating cosmetics has been used successfully, for example, in clearing bay rum, which has become cloudy on standing for a considerable period of time in glass.

It is desirable, therefore, in considering containers for cosmetic preparations to choose a type of glass which will not discharge alkaline material into the contents.

ETHYLENE ANESTHESIA IS GAINING IN POPULARITY

Ethylene, one of the more recent developments in anesthesia, which at first met with considerable opposition among its users, is now becoming more widely accepted according to a recent survey of 534 anesthetists, which reported 220 of these regularly using ethylene.

It is predicted that in many cases the era of post operative pneumonias, gas pains, excessive nausea, etc., will be over in the near future.

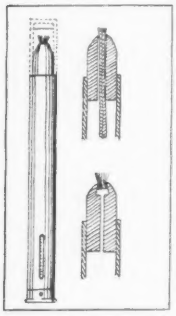
STERILIZATION OF MOLASSES MASH: Molasses mash which is to be inoculated with a pure yeast culture is first sterilized to insure the development of the true culture. This culture is allowed to develop in this sterilized molasses and then is transferred by subsequent steps until it finally reaches the fermenter itself. The picture shows the interior of the sterilizer with several flasks of molasses mash ready for sterilization by heating.

Published Monthly by the U. S. Industrial Alcohol Co.

NEW CONTAINER-APPLICATOR DESIGNED FOR VOLATILE LIQUIDS

A novel fountain applicator for use with rapidly evaporating preparations presents many new features which are desirable in packaging a product of this kind.

Of simple and practical airtight construction, and as easily handled as a fountain pen, it may be used for applying liquids whether intended for medication, manicure or other purposes. The usual method of dipping into the container with an applicator may be avoided. This is especially desirable with liquids containing dyes in volatile solvents which have a tendency to change color on evaporation, liquids containing solutions of nitrocellulose such as nail enamels, household cements, etc.



Tincture of iodine, the most widely used antiseptic, may be kept at its original strength in this device without danger of change due to loss of alcohol through evaporation. This is an especially desirable feature as the loss of alcohol in iodine tinctures has long been a problem where the solution was continually being exposed to the air. The following is an item reprinted from the February 1933 issue of SOLVENT NEWS:

Alcohol loss in tincture of iodine has been determined by tests in which the tincture was exposed to the atmosphere for seven days. In this period a loss of 46.27% of alcohol and 6.6% of iodine was recorded. This study emphasizes the necessity for careful sealing of tinctures kept on hand for any length of time to avoid burns from the concentrated iodine solution.

With this new type of container and applicator regardless of the use to which it is put, it is claimed no spillage, evaporation, or thickening can occur. In the case of poisons such as iodine, the contents cannot possibly be taken by mistake.

For thick, viscous liquids, the applicator is equipped with a special venting device which assures a smooth even flow. Other models are similar in design but equipped with special outlets to take care of liquids of any consistency. These have capillary wicks or perforated brush outlets as shown in the illustration above.

This device may be made in any desired size, is stated to be non-breakable, insulated, and to permit the amount of the contents to be noted at all times, which is an important feature where the package is intended to be non-refillable.

USES OF ALCOHOL IN INDUSTRY—No. 7

This is the seventh of a series of articles describing briefly the important contributions alcohol has made to the health and well-being of mankind.

ALCOHOL IN THE TEXTILE INDUSTRY

Within the last quarter century, an entirely new textile industry has come into being and owes its inception to a commercial use of alcohol. This product is Rayon or synthetic silk. As a truly chemical fiber, it enters into almost every textile material in daily use. Dress goods, hosiery, tapestries and coverings are only a few of its many employments. From a small beginning production has increased to a figure of over 100 million pounds yearly.

Rayon silk is essentially a cellulose product and the raw material is usually cotton linters. At present, there are four processes of manufacture, three of them depending on the regeneration of the cellulose and the fourth, a cellulose acetate product—sometimes called acetate silk. Of this group, one of them employs alcohol and ether in most substantial gallonage—following in an improved way, the original process of years ago.

The alcohol-ether rayon starts with nitrocellulose, which is dissolved in said solvents to a viscous mass. This latter is forced through a spinneret, yielding tiny filaments which coagulate on contact with air. These threads are passed through a denitrating bath when they are regenerated into true cellulose, but changed in physical appearance to resemble silk fibers. After suitable washing and purification, the threads are gathered into skeins, dyed and woven.

Mixed with real silk or more often with cotton, a fabric is thus produced which simulates silk and is available to the consumer at but a fraction of the price which pure silk would cost. Although the alcohol-ether rayon process is now supplemented by the other methods mentioned above, it still holds its own place in the industrial field and illustrates another landmark in the contribution of alcohol to the general welfare.

Cellulose may enter the cosmetic industry as an ingredient for powders. A very fine powder is obtained by treating cotton or wood cellulose in a suitable acid medium according to a recent French Patent.

TECHNICAL DEVELOPMENTS

Alcohol injections, used to deaden the nerve centers, form the basis for a new method of curing drug addiction. The injections serve to block the nerves for several days, thus eliminating the nauseating effects of the stoppage of the narcotic without affecting the muscle action.

* * *

A new formula for specially denatured alcohol has recently been patented and assigned to the United States Government. It is said to employ a combination of alpha-terpineol and impure isopropanol as the denaturant for the alcohol.

* * *

A new electrical water-purifying process, said to kill bacteria, remove iron, sulphur, gases, and odors without the use of chemicals, has been developed for industrial and municipal use. The equipment is built to treat any volume of water in motion.

* * *

A new developing unit for making black and white positive prints directly, without the use of a negative, has been developed. It will develop prints up to 36 inches in width and can be used by anyone having a blueprinting machine.

* * *

Dehydrated alcohol is being produced by a new process in Cuba. Calcium sulphate is the active agent employed. Because very little space and no columns are required and the low cost of the dehydrating material conversion costs amount to only about ½ cent per gallon.

* * *

Alcohol used as a solvent in place of water in the detection of free salicylic acid in acetylsalicylic acid (by the official A.O.A.C. method) will minimize the likelihood of error, according to a recent report, which states that the decomposition is retarded and the filtration speeded up.

* * *

A new type sulphonated oil for use in making emulsions, cutting oils, lubricants and soapless-shampoos, is now being marketed. It is a brown viscous non-drying oil which is said to dissolve in oils and hydrocarbons.

* * *

A high-test alkali sodium metasilicate for industrial cleaning purposes has been placed on the market. It is said to be superior to many alkalis used in ordinary soap manufacture in that it has distinct cleaning properties of its own, wets greasy surfaces and emulsifies and suspends fatty matters and also acts to prevent corrosion.

* * *

Harmful action of cosmetics to the skin causing irritations of one sort or another are usually due to hydroxycitronellal according to a German report. Other substances sometimes found to have irritating effects include benzylidene acetone, nutmeg-oil, mustard-oil, and all other sulphur-containing oils.

* * *

Tincture of iodine should be diluted according to recent reports. It is among the more powerful antiseptics and the recommendation is made that iodine should be used in higher dilution than is now customary. The suggestion is that the U.S.P. specifications designate tincture of iodine as containing not more than 3 percent of free iodine.

* * *

A new compact, portable X-Ray unit said to be the smallest of its kind developed to date may be used on current from an ordinary light socket, is of sturdy construction and easily operated. It is said to permit fluoroscopic examinations of apparatus, machinery, packages, clothing, etc.

U.S. INDUSTRIAL ALCOHOL CO.

WORLD'S LARGEST PRODUCERS OF INDUSTRIAL ALCOHOL

ETHYL ALCOHOL

SPECIALLY DENATURED-*All Formulas* • COMPLETELY DENATURED-*All Formulas* • ANHYDROUS-*Denatured* • ABSOLUTE-*Pure*

SOLOX-*The General Solvent* • PYRO-*The Standard Anti-Freeze*

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EVERY step—from extensive research to the prompt handling and shipping of finished products—is carried out with characteristic thoroughness and efficiency within the Monsanto organization. The result is *satisfaction* for buyers specifying Monsanto Chemicals.

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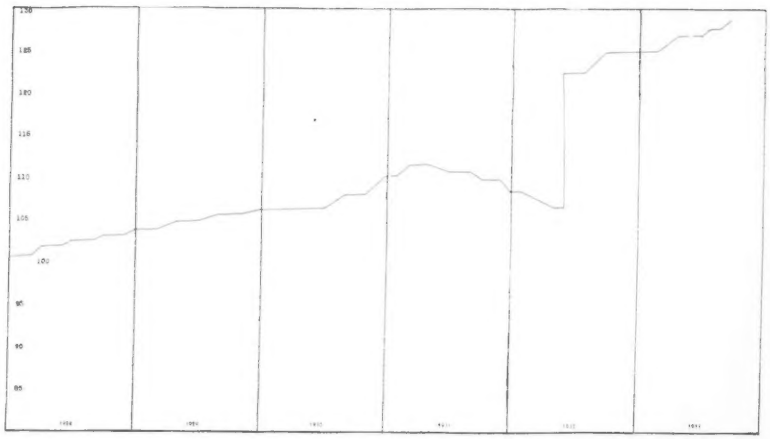
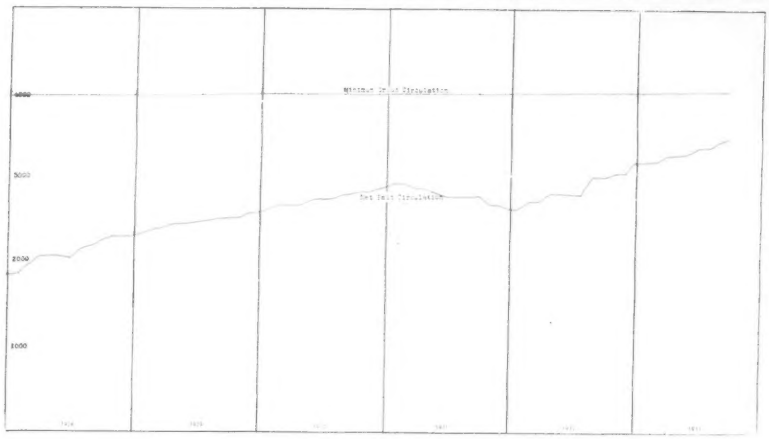
Chemicals

It Takes a Depression—

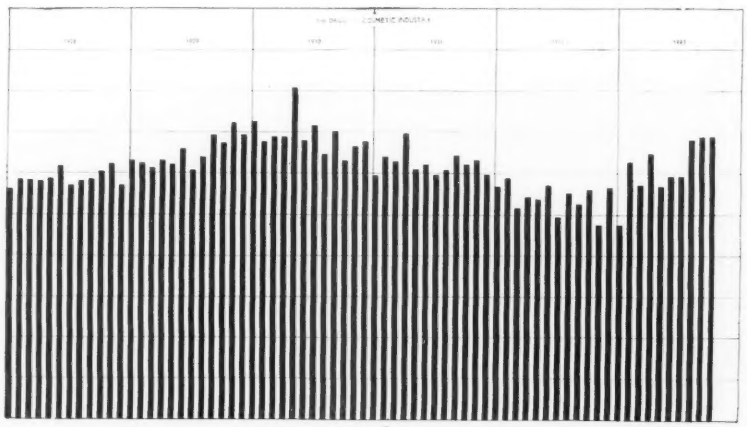
To Show True Values



An increasing editorial investment since January 1928, which has been reflected in increased circulation and a forward momentum in advertising.



Since January 1928, a steady, unfluctuating gross circulation; a steadily climbing net paid circulation.



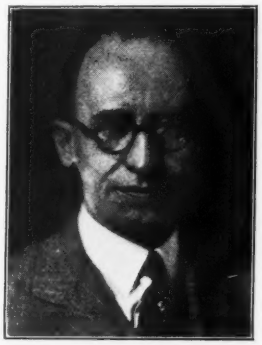
Advertising volume by months, January 1928 to October 1933.

THE DRUG AND COSMETIC INDUSTRY

NEWS

Dr. Doran Leaves Government

Dr. James M. Doran, Commissioner of Industrial Alcohol, and previously Commissioner of Prohibition, has resigned after twenty-six years in the government service to become supervisor of the Distilled Spirits Institute, a trade association formed by beverage liquor distillers to operate under the new code for the industry approved by the Agricultural Adjustment Administration and controlled by the Federal Alcohol Control Authority. His resignation was coincident with the termination of the Bureau of Industrial



Dr. James M. Doran

Alcohol as an individual unit, and its incorporation as part of the Bureau of Internal Revenue.

Decisions issued by the Treasury Department declared that all regulations, permits, and bonds issued under title III of the national prohibition act relating to industrial alcohol are to continue in force. As the prohibition law itself has not been repealed by Congress, it was ruled that title II of this act, relating to intoxicating liquors for medicinal and other permitted uses, remains in effect in all regions subject to the control of Congress, including the District of Columbia, the territories, and possessions of the United States. Elsewhere regulations under title II are of no effect, and bonds required by such regulations will not be required as to future transactions, except that in many cases internal revenue bonds will be required.

Schultz Quits Lightfoot Schultz

William L. Schultz, has resigned as vice-president, Lightfoot Schultz Co., New York, and established a new business under his own name at 358 Fifth ave., that city. Marshall Mundheim, for some time connected with Lightfoot Schultz Co., will continue to direct its policies.

W. S. Young Quits Swindell

William S. Young for many years sales manager for Swindell Bros., Baltimore,

W. S. Young

has severed his connection with that firm. Before making further plans he is planning a vacation of four weeks.

H. Richard Noonan to Marry

H. Richard Noonan, assistant sales director, Drug Products Co., Long Island City, is engaged to marry Miss Eloise Roberts, Scarsdale, N. Y.

Haggerty Joins Northam Warren

Douglas A. Haggerty, formerly sales manager of Hinze Ambrosia, Inc., is now assistant sales manager of the Northam Warren Sales Company, Inc., distributors of Cutex. Odorono, and Elcaya, under O. C. Olin, sales manager.

H. A. Haus, who for the past two years has been assistant sales manager of the Northam Warren Sales Company, Inc., has been made sales manager of the Glazo Company, Inc.

H. van H. Proskey Joins Lehn & Fink

H. van H. Proskey, formerly associated with the United States Advertising Corp. as vice-president in charge of the New York office, has resigned to go with Lehn & Fink Products Co. as manager of sales for Pebeco tooth paste, Hinds Honey & Almond Cream, Lysol disinfectant, and a variety of other products.

Schirmer Joins Carol Chem. Corp.

A. W. Schirmer, for many years connected with Magnus, Mabee & Reynard, Inc., dealers in essential oils and aromatic chemicals, has become associated with the Carol Chemical Corp., New York, as vice-president and general manager. The Carol firm, located at 192 South Boulevard street, is headed by H. W. Freygang.

Huisking on Cod Liver Oil

Charles L. Huisking, president, Charles L. Huisking & Co., New York, is the author of an article in the November issue of "Good Eating," entitled "The Arctic's Gift to Children." The *gift* is cod liver oil, and particularly Norwegian cod liver oil. The same issue contains a picture of Dr. Richard Willstatter, Dr. Davis Klein, president of Wilson Laboratories, and Dr. Julius Stieglitz, taken at the presentation of the Willard Gibbs Medal.

Mann to Serve

Ellery W. Mann, president, Zonite Products Corp., New York, is chairman of the drug and pharmaceutical division of the Citizens Family Welfare Committee campaign in New York to raise $1,000,000.

La Porte Joins Inst. of Medicine Mfrs.

Leon S. La Porte, formerly vice-president and director of advertising of the Foster-Milburn Co., Buffalo, N. Y., has been appointed director of publicity in charge of the New York offices of the Institute of Medicine Manufacturers.

Blatt in Europe

Armand Blatt, president, Nusheen, Inc., New York, is now on a European trip from which he will return about the first of January.

Shotwell Rejoins Jamieson

H. C. Shotwell is back with C. E. Jamieson & Co., Ltd., Windsor Ont., as managing director.

Roy Root Joins Coty

Roy Root, for 15 years New York representative for the Scoville Manufacturing Co., Waterbury, Conn., has resigned his position with Scoville to join Coty, Inc., on January 2, 1934. Mr. Root has been retained by Coty in a special merchandising which his seasoned knowledge of the trade has brought him.

Webber Leaving Packer

Calvin R. Webber, assistant to the president, the Packer Manufacturing Co., Inc., New York, is resigning from his position with that company. He entered the drug field in 1927 with a background of selling and building up dealer organizations. Since 1927, he has been in charge of a sales development program, called the "Packer Plan," which has brought him into intimate contact with the major distribution channels in the drug industry. Due to changing conditions this plan is being discontinued by the company, but his record and experience has

been highly praised by officials of the organization.

Associations

S. O. C. M. A.

Synthetic Organic Chemical Manufacturers' Association has elected the following officers: President, August Merz, of the Calco Chemical Co.; Vice-presidents, E. G. Robinson, of E. I. duPont de Nemours & Co., and F. G. Zinsser, of Zinsser & Co.; Treasurer, Ralph E. Dorland, of the Dow Chemical Co.; Secretary, Charles A. Mace, 260 West Broadway, New York.

Additional members of the board of governors, E. A. Barnett, of John Campbell & Co.; G. Lee Camp, of the Monsanto Chemical Co.; and A. L. Van Ameringen, of Van Ameringen-Haebler, Inc.

Garvan & Herty Address S.O.C.M.A

The Synthetic Organic Chemical Manufacturers Association held its twelfth annual meeting December 7 in the Chemists' Club New York. Among the speakers were Francis P. Garvan and Dr. Charles H. Herty.

Drug Institute Committee

Drug Institute has appointed a Fact Finding Committee to consist of Dr. J. H. Beal, Chairman of the Board of Trustees of the United States Pharmacopoeia, Dean Charles H. LaWall, Member of Revision Committee of the United States Pharmacopoeia, Pharmaceutical and Chemical Editor of the United States Dispensatory, Dean of Philadelphia College of Pharmacy, and Dean H. V. Arny, Ph. D., Gottingen University, Professor of Pharmacy at Cleveland School of Pharmacy, Member Revision Committee, United States Pharmacopoeia, Dean of College of Pharmacy, Columbia University, and author of "Principles of Pharmacy," thoroughly to investigate problems growing out of the proposed Federal Food and Drug legislation and to report its conclusions to the Executive Committee of the Institute.

Manufacturing Chemists Criticize Tugwell Bills

Manufacturing Chemists Association, at a meeting held in the Chemists' Club, New York, November 28, criticized the proposed Food and Drugs bill in order that the opinion of the group might be set before the Senate subcommittee hearings. The Synthetic Organic Chemical Manufacturers Association will be jointly represented on the committee submitting the bill.

Drug Trade Conference Meets

The National Drug Trade Conference at its annual meeting in Washington, December 5, devoted itself to a consideration of the proposed Food and Drugs bill, and adopted certain resolutions in connection with it, which resolutions are given elsewhere in this issue in connection with the first Senate hearings on the bill.

The conference also appointed the following as a special committee on the revision of the act: J. H. Beal, chairman of, the American Pharmaceutical Association; R. L. Swain, of the National Association of Boards of Pharmacy; W. B. Philip, of the National Association of Retail Druggists; H. W. Bigelow, of the

Carson P. Frailey

American Drug Manufacturers' Association; H. B. Thompson, of the Proprietary Association; J. G. Beard, of the American Association of Colleges of Pharmacy; W. L. Crounse, of the National Wholesale Druggists' Association; R. E. L. Williamson, of the Federal Wholesale Druggists' Association; Harry Noonan, of the American Pharmaceutical Manufacturers' Association.

By unanimous endorsement of the report of the nominating committee, presented by S. L. Hilton, chairman, the conference elected the following officers: President, Carson P. Frailey, Washington, American Drug Manufacturers' Association; vice-president, A. C. Taylor, Washington, National Association of Boards of Pharmacy; secretary-treasurer, E. F. Kelly, Baltimore, American Pharmaceutical Association; Councillor in the Chamber of Commerce of the United States, S. L. Hilton, Washington.

The following representatives of the other constituent associations were designated by the respective delegations to serve with the officers as members of the executive committee: W. B. Philip, National Association of Retail Druggists; W. L. Crounse, National Wholesale Druggists' Association; Harry Noonan, American Pharmaceutical Manufacturers' Association; J. G. Beard, American Association of Colleges of Pharmacy; P. I. Heuisler, Proprietary Association; R. E. Lee Williamson, Federal Wholesale Druggists' Association.

Insecticide and Disinfectant Makers Meet

Insecticide & Disinfectant Manufacturers Association held its twentieth annual meeting at the Hotel New Yorker, December 11, 12, and 13. Among the speakers were Peter Dougan, Merck & Co.; John Powell, John Powell & Co.; Dr. Emil Klarmann, Lehn & Fink, Inc.; Ray C. Schlotterer, Drug & Chemical section, N. Y. Board of Trade; Dr. Harvey A. Seil, Seil, Putt & Rusby, Inc.; A. L. van Ameringen, Van Ameringen-Haebler, Inc., New York; Dr. Alfred Weed, Entomological Testing Laboratories, Inc., New York; and Dr. Charles H. Peet, Rohm & Haas Co., Inc.

To Exhibit at Packaging Show

The following companies are among those which will exhibit at the Fourth Annual Packaging Show to be held in the Hotel Astor, New York, March 13 to 16, 1934: American Can Co., New York; Armstrong Cork & Insulation Co., Lancaster, Pa.; Bakelite Corp., Bound Brook, N. J.; Calkins & Holden, New York; Container Corporation of America, Chicago; Cross Products Paper Co., New York; Dennison Manufacturing Co., Framingham, Mass.; Du Pont Cellophane Co., Inc., New York; Einson-Freeman Co., Inc., Long Island City, N. Y.; Robert Gair Co., Inc., New York; General Plastics, Inc., No. Tonawanda, N.Y.; Lowe Paper Co., Ridgefield, N. J.; National Metal Edge Box Co., Philadelphia, Pa.; Owens-Illinois Glass Co., Toledo, Ohio; Package Machinery Co., Springfield, Mass.; Riegel Paper Corp., New York; Stokes & Smith Co., Philadelphia; Sylvania Industrial Corp., New York.

Drug Institute Elects

The Drug Institute of America has elected the following directors: George W. Merck, Merck & Co.; A. H. Beardsley, Dr. Miles Medical Co.; Edward Plaut, Lehn & Fink; Northam Warren, Northam Warren Sales Co.; Ross C. Treseder, Coca-Cola Co.; A. Kiefer Mayer, Kiefer-Stewart Co.; George M. Gales, L. K. Liggett Co.; E. F. Kelly, secretary, American Pharmaceutical Association; R. W. Johnson, Johnson & Johnson; M. G. Gibbs, People's Drug Co.; C. H. Palmer, E. R. Squibb & Sons; J. J. Dreyer, N. J. Wholesale Drug Co.; A. Fritz, retailer, Indianapolis; N. Shapiro, Affiliated Chain Stores; and A. L. Filene, William Filene's Sons.

POWCO

LABORATORY CONTROLLED BRAND

REG. U.S. PAT. OFF.

Neutral Powdered Soaps

We specialize in the production of Neutral Powdered Soaps primarily for use in dentifrices and toilet preparations.

With the requirements of these types of products in mind Powco Brand Soaps are manufactured from refined edible oils; have no free caustic or free alkali; have a decidedly low moisture content, and are LABORATORY CONTROLLED.

Tested Persian Quince Seed

It is important to know the country of origin of the Quince Seed you buy. Not because this is your primary basis upon which to purchase seed intelligently, for naturally the only thing that counts is the color, quantity and quality of the mucilaginous content. But it helps in determining the true value of the seed, to know its true source of origin.

We have prepared small sample lots of false Persian, Cape, Spanish, Russian and Indian seed. They will provide you with a quick, easy way to accurately identify seed offered you.

Compare these check samples with our TESTED PERSIAN QUINCE SEED. Look for freedom from dirt, mould and insect infestation. Then check,—through the simple but efficient test procedure we offer you—for mucilaginous content, that is, color, quality, quantity and freedom from mould.

You will find POWCO TESTED PERSIAN QUINCE SEED not only the best, but the most economical on this, the true basis of quince seed value.

Concentrated Shaving Cream Base

This product is a creation of our Chief Soap Chemist, and affords a medium for manufacturing a quality finished shaving cream, most expeditiously and most economically.

REMOVES ALL UNCERTAINTY FROM SHAVING CREAM MANUFACTURE

Send for Samples and Compare

JOHN POWELL & CO., Inc.

114 East 32nd Street, New York, N. Y.

Christmas Party

The Chemical Salesmen's Association has announced that its annual Christmas party will be held in New York on December 28.

Companies

Inecto Denied Review

Inecto, Inc., manufacturer of hair dye, has been denied by the Supreme Court of the United States a writ of certiorari to the second circuit appellate court for a review of the action of Judge Manton in allowing the Federal Trade Commission to eliminate "nonessential portions" in printing the record of its case and desist order against misrepresentation of "Inecto Rapid Notox." The manufacturer contended that Judge Manton acted in excess of his powers when he entered the order, in that the rules of the second circuit provide that the commission, in applications to the court for the enforcement of its orders, shall print the entire record.

A. D. S. Extends Contest

American Druggists Syndicate announces that the closing date for entries in its current fellowship contest, with the object of finding "the living American pharmacist who has contributed the most to the health of his community," has been advanced to March 1, 1934.

Abbott Vitamin Cabinet

Abbott Laboratories, North Chicago, is offering retail druggists a Vitamin Prescription Cabinet, a professional metal display case finished in black and silver. It is furnished free of charge with the assortment of Abbott Vitamin Products for which the cabinet is designed.

At the recent Direct Mail Advertising Association Convention in Chicago, the "Make-Your-Goal Campaign" of Abbott Laboratories, was selected as one of the fifty best direct mail campaigns of the year among advertisers in the United States and Canada. Theirs was the only award made to a pharmaceutical manufacturer.

Du Pont on NRA

Pierre S. du Pont, chairman of E. I. duPont de Nemours & Co., Wilmington, has been elected chairman of the N. R. A. industrial advisory board.

Givaudan Cross Word

The November issue of "The Givaudanian," published by Givaudan Delawanna, Inc., New York, features a crossword puzzle whose solution depends upon a knowledge of the company's products. A prize of five dollars is offered for its solution.

Swindell Advances Scott

Swindell Bros., Baltimore, have announced the promotion of Joseph Scott from the post of Assistant Sales Manager to Sales Manager of the company. He has been associated with Swindell Bros.

Joseph Scott

for the past six years. As in the past he will continue to have his headquarters at the New York office of the company at 200 Fifth Ave. Although still a young man, he is one of the old-timers in the glass business, having been with the old Illinois Glass Co. before becoming associated with Swindell Bros.

Squibb Diphtheria Toxoid

The Squibb Laboratories announce the availability of Refined Diphtheria Toxoid Alum Precipitated with the featured advantage that one injection is sufficient for the immunization of the majority of children against diphtheria. The efficacy of the preparation in immunizing against diphtheria is believed to be due to the fact that the alum precipitated toxin, since it is relatively insoluble, is more slowly absorbed and remains in the body sufficiently long to produce adequately protective amounts of antitoxin.

One injection of Alum Precipitated Toxoid is reported to be as effective as two or three injections of ordinary unprecipitated toxoid, and is also said to produce a greater number of negative Schick Tests, that is, a higher percentage of immune individuals. These features make Alum Precipitated toxoid of particular value in public health work, for two or three times as many persons may be immunized with no more effort nor time on the part of the public health worker. It also makes it easier for the family physician to follow the advocated procedure of immunizing every infant, at whose birth he has officiated, at 6 months of age.

Squibb Refined Diphtheria Toxoid Alum Precipitated is prepared according to the method reported by the Alabama Board of Health for a single-dose treatment. It is marketed in 0.5 cc. vials for immunization of one person, and in 5 cc. vials containing sufficient material for the immunization of ten individuals.

Inecto Advertising

What is believed to be the largest trade paper schedule ever placed in one publication by one advertiser has been contracted for by Sales Affiliates, Inc., New York, sales organization for Inecto Rapid Notox, Marinello cosmetics and Zotos permanent waving.

To back up its consumer advertising, which now includes magazines, newspapers and radio, as well as a variety of dealer helps, this organization will publish a 16-page rotogravure insert in each issue of *Modern Beauty Shop*, Chicago, during the next year. The first insert appeared in the December issue of that publication.

Ansbacher-Siegle Meeting

Ansbacher-Siegle Corp., Rosebank, Staten Island, N. Y., held a sales meeting of the color division under the direction of F. H. Couchman, sales manager, November 24 and 25. Salesmen and sales agents from all over the country attended this meeting at which plans for 1934 were discussed, including new developments and improvements in color for cosmetic manufacturers.

Anchor Cap Booklets

Anchor Cap & Closure Corp., Long Island City, New York, has published two attractive booklets containing commercial and technical information of interest to the buyers of closures. One booklet is entitled, "The Anchor Amerseal Cap" and the other, "Anchor Molded Caps."

Seydel Booklet

Seydel Chemical Co., Jersey City, has published a new booklet describing the company's fine chemical products. Copies may be obtained upon request.

New Products

MELBA COLD CREAM

Parfumerie Melba, Inc., New York, has added a two-ounce opal jar of cold cream to its line of cosmetics. It is called "Melba Cold Cream," and retails for 25 cents.

PIMTEX LOTION

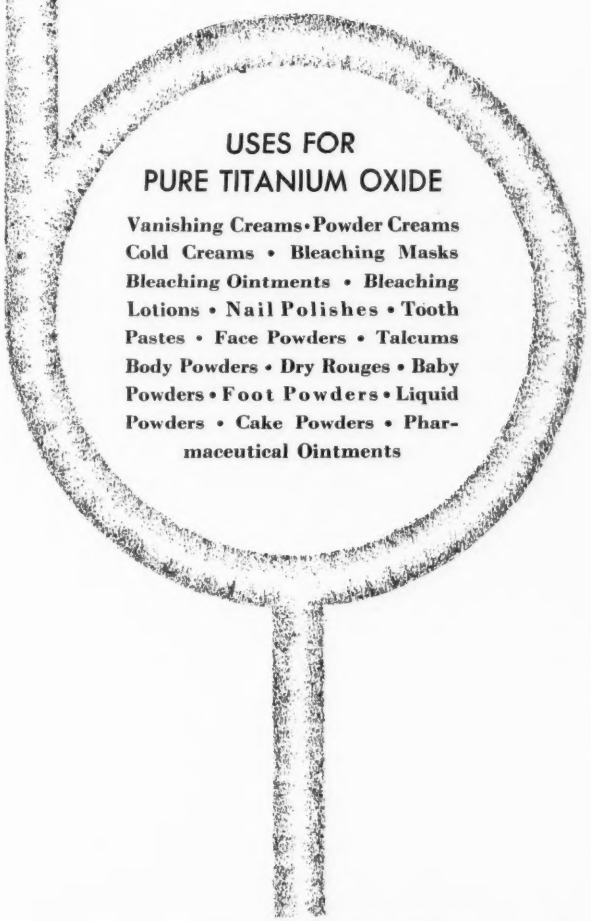
Pimtex Co., Des Moines, has been organized to manufactur and sell a new skin lotion.

Removals

PRINCE MATCHABELLI

Prince Matchabelli Perfumery Corp., New York, has announced its removal to 724 Fifth ave., that city.

This modern, whiter pigment replaces harsh irritants



USES FOR PURE TITANIUM OXIDE

Vanishing Creams • Powder Creams Cold Creams • Bleaching Masks Bleaching Ointments • Bleaching Lotions • Nail Polishes • Tooth Pastes • Face Powders • Talcums Body Powders • Dry Rouges • Baby Powders • Foot Powders • Liquid Powders • Cake Powders • Pharmaceutical Ointments

● Chemical inertness and stability combined with unusual particle fineness make Pure Titanium Oxide a valuable pigment in cosmetic manufacture. This pigment never produces irritating alkaline reactions or other undesirable effects in cosmetics or pharmaceuticals ● This pure white opaque pigment is finer in particle size than other commonly used white pigments. It has excellent adhering qualities and remarkable tinting and covering power. When used in vanishing creams, talcum powders, face powders, lotions, tooth pastes and numerous other products, Pure Titanium Oxide improves stability, texture and color ● Every manufacturer of cosmetics and pharmaceuticals should carefully investigate the advantages of Pure Titanium Oxide. Another of our products, Titanox-B (barium base), also has wide application in manufacturing scores of products. All Titanox products are produced under strict laboratory supervision and are widely known for their highly uniform purity ● Get in touch with us now and let us cooperate in adapting Titanox pigments to your formulas. Write today.

TITANIUM PIGMENT COMPANY, INC.

Manufacturers of . . . TITANOX-B (Barium Base)
TITANOX-C (Calcium Base) . PURE TITANIUM OXIDE

111 Broadway, New York, N. Y.; Carondelet Station, St. Louis, Mo.; Pacific Coast Distributor: National Lead Company of California, 2240 24th Street, San Francisco, Cal.; Canadian Distributor: Wilson, Paterson, Gifford, Ltd., 101 Murray Street, Montreal—132 St. Helen's Avenue, Toronto, Ont.

TITANOX

Removals

THE DRUG & COSMETIC INDUSTRY

THE DRUG & COSMETIC INDUSTRY announces its removal to new and larger quarters on the seventeenth floor of the building at 101 West 31 Street, New York. In addition to larger office space, the new headquarters allow for the installation of a model drug and cosmetic laboratory, which will soon be on display.

E. J. FAY

E. J. Fay, New York, has found it necessary to move into larger quarters and now occupies the entire eighth floor of the building at 254 West 31 st., that city.

NATIONAL COLLAPSIBLE TUBE CO.

National Collapsible Tube Co., of Providence, R. I., has announced the removal of its New York office to 331 Madison ave., that city. Telephone—Murray Hill 2-0339. H. R. M. Gordon is the company's New York representative.

MOIRET, INC.

Moiret, Inc., has announced the removal of its offices and showroom to new and larger quarters at 6 East 39 st., New York.

MURRAY BREESE

Murray Breese, specialist in drug and pharmaceutical advertising, has moved into larger quarters at 11 West 42 st., New York. Telephone—Longacre 5-3921.

Charabot to Return

Senator Eugene Charabot, head Charabot & Co., Grasse, France, sailed December 16th for Paris on the "Ile de France" following a four weeks visit to this country.

While here, Senator Charabot made his headquarters at the offices of his American Agents, Ungerer & Co., New York, and during his stay called on the New York trade in company with F. H. Ungerer, president of Ungerer & Co. A contemplated visit to the trade in other parts of the country has been postponed until next March.

A. D. A. Omits from Accepted Remedies

SQUIBB DENTAL CREAM

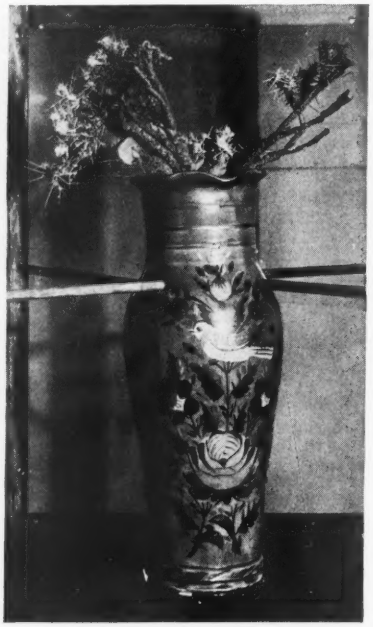
Because E. R. Squibb & Sons advertise Squibb Dental Cream to the public and to the profession with therapeutic claims in conflict with the liberal provisions of the Council for dentifrices.

PEBECO TOOTH PASTE

Because the advertising for 1933 was a reversion to a type of advertising which the firm had agreed to give up when the Council first considered the product.

Tragacanth Plant

The plant illustrated here is the only member of the gum tragacanth family in this country. A particularly good view of the exuding gum may be seen about the middle of the lowest branch of the plant on



the left-hand side. This plant is the property of Thurston & Braidich, New York, and attracted widespread interest while on display in the booth of THE DRUG & COSMETIC INDUSTRY at the recent Chemical Show in New York.

A Clean Tooth - - -

None of the dietary schools of thought, neither "the cod-liver oil, the tomato class, nor the A, B, C or D vitamins" school can deny the truth of the old adage—"a clean tooth will not decay," Dr. Thaddeus P. Hyatt declared, December 7.

Speaking at the Greater New York December Dental Meeting at the Hotel Pennsylvania, Dr. Hyatt insisted that decay was caused by lack of cleanliness alone.

"And as for a diet of vitamins to prevent decay, the manufacturers of cod liver oil, tomato juice, orange juice and all the rest benefit more than the patient," he declared.

Dr. Hyatt, who is director of the dental division of the Metropolitan Life Insurance Company and Clinical Professor of Preventive Dentistry at New York University, took exception to statements made by opponents of his belief, and challenged them to a public debate. He insisted that "the free acids of the mouth do not cause decay, and the free bacteria of the mouth do not cause decay, but the undisturbed retention of food debris, carbohydrates and bacteria is essential for the beginning of decay. "

"Despite all their research on diet, germs and what not," he said, referring to his opponents, "they have not disproved the grand old slogan yet."

Dr. Hyatt declared there was ample support "for the conclusion that dental caries always begin on the outer surface of the tooth, and that when the surface is properly protected the tooth will be preserved against it.

"It is an actual fact," he insisted, "that those parts of the tooth which, either by mastication, or careful mouth toilet, are kept free from the undisturbed retention of food debris and bacteria do not, never did, and never will decay."

A. M. A. Accepts

DIPHTHERIA TOXOID, SQUIBB

Diphtheria Toxoid, manufactured by E. R. Squibb & Sons, New York.

ERYSIPELAS SERUM, NATIONAL

Anaerobic Antitoxin, Erysipelas Antistreptococcus Serum, Diphtheria Immunity Test and Tuberculin—Koch, manufactured by the National Drug Co., Philadelphia.

HALIVER OIL, ABBOTT

Abbott's Haliver Oil, Plain, and with Viosterol 250-D, manufactured by Abbott Laboratories, North Chicago.

HALIBUT LIVER OIL, MEAD

Mead's Halibut Liver Oil, and with Viosterol 250-D manufactured by Mead Johnson & Co., Evansville, Ind.

HALIVER OIL, PARKE-DAVIS

Parke-Davis Haliver Oil, Plain, and with Viosterol 250-D marketed by Parke, Davis & Co., Detroit.

HALIBUT LIVER OIL, SQUIBB

Squibb Stabilized Refined Halibut-Liver Oil, and with Viosterol 250-D manufactured by E. R. Squibb & Sons, New York.

TUBERCULIN-KOCH, LEDERLE

Tuberculin-Koch, manufactured by Lederle Laboratories, Pearl River, N. Y.

DIPHTHERIA TEST, HIXSON

Diphtheria Immunity Test, manufactured by Hixson Laboratories Inc., Johnstown, O.

Narcotics in 1932

The report of the Bureau of Narcotics of the Treasury Department for the calendar year 1923 contains the following data on imports and processing of opium and coca and on production and

The preparation of individualized perfumes for cosmetics constitutes one of our most valuable services to our customers. Our experts will study the properties of any cosmetic and "build" a perfume for that particular product . . . and you may rest assured that the perfume prepared will be the most effective obtainable for the particular use desired. We will be glad to send special information on this subject.

- **POWDERS**
  Chypre—Gardenia—Jasmine—Eastern Bouquet
- **CREAMS**
  Wistaria New—Apple Blossom—Orange Blossom—Nile Lily
- **LOTIONS**
  Fougere—Lavender—Orchid—Cucumber
- **HAIR PREPARATIONS**
  In addition to the standard perfumes, we have added to this group a few new unusual types.

FRITZSCHE BROTHERS, INC.

Proprietors of
PARFUMERIES DE SEILLANS
Seillans, France
118 W. Ohio Street
Chicago

•

78-84 BEEKMAN ST.,
NEW YORK, N. Y.

•

Sole Agents in the U. S. and Canada for
SCHIMMEL & COMPANY
Miltitz (near Leipzig) Germany
FRITZSCHE BROS. of Canada, Ltd.
77-79 Jarvis Street, Toronto

sales of alkaloidal derivatives of these drugs:—

	Ounces
Crude Opium	
In hands of importing manufacturers, January 1, 1932	288,448
Imported during 1932 (Imports in 1931 were 2,157,558 ozs.)	2,091,482
Used in manufacturing medicinal opium	76,712
Used for extraction of alkaloids	1,854,052
Used in manufacturing liquid preparations	23,142
Lost or consumed in analyses	194
On hand December 31	425,830
In process for alkaloid extraction during year	2,516,387
Processed during year	1,582,592
Opium Alkaloids Produced	
Morphine and its salts	92,300
Dilaudide and its salts	87
Apomorphine	103
Codeine, synthetic, and its salts	125,753
Codeine, natural, and its salts	17,156
Dionine	11,837
Pantopon (mixture of alkaloids)	7,012
Coca Leaves	
In hands of importing manufacturers, January 1, 1932	20,657
Imported during 1932 (Imports in 1931 totaled 7,803,862 ounces, including 3,474,016 ounces imported for the manufacture of a nonnarcotic flavoring extract, the alkaloids being destroyed under government supervision.)	3,584,697
Used for extraction of cocaine	3,564,048
Sold as coca leaves	7,615
On hand December 31	33,691
In process for alkaloid extraction during year	5,551,174
Processed during year	3,320,156
Coca Alkaloids Produced	
Cocaine alkaloid, refined	1,449
Cocaine hydrochloride	29,459
Cocaine nitrate	9
Tropococaine	1
Manufacturers Sales	
Opium (includes liquid preparations)	10,054
Morphine	95,942
Codeine	160,621
Dionine	11,405
Other opium derivatives	6,951
Cocaine and its salts	30,046

New Cod Liver Oil Standard

The U. S. Pharmacopoeial Vitamin Advisory Board has recommended the adoption of the following vitamin standards for U. S. P. X Cod Liver Oil and the release of this announcement, as an interim revision, has been authorized by the U. S. P. Committee of Revision and U. S. P. Board of Trustees.

It is expected that the complete printed text, including the assay details, will be available before January 1st, 1934. The date when it shall become official has not yet been determined but July 1, 1934 has been suggested.

The U. S. P. Vitamin Advisory Board also recently announced the release of "Reference Cod Liver Oils" of known vitamin A or vitamin D potency, expressed in International Units. These "Reference Oils" are to be used as standards in vitamin A or D assays for determining the potency of Cod Liver Oil, Cod Liver Oil Concentrates, irradiated ergosterol or other irradiated or vitamin A or D containing products, whether medicines or foods. This Reference Oil is obtainable in 30 cc. containers and is standardized for either its vitamin A or D potency.

The New U. S. P. X Cod Liver Oil Standards are as follows:

Minimum standard for Vitamin A for U. S. P. Cod Liver Oil. The minimum Vitamin A standard for U. S. P. Cod Liver Oil shall be not less than 600 International Units.

Minimum standard for U. S. P. for Vitamin D Cod Liver Oil. The minimum Vitamin D Standard for U. S. P. Cod Liver Oil shall be not less than 85 International Units.

Note: *The new "U. S. P. Vitamin A Units" and U. S. P. Vitamin D Units" are identical with the corresponding "International Units."* In expressing on labels the potency of vitamin-containing products, it is recommended that the term "U. S. P. Vitamin A Units" or "U. S. P. Vitamin D Units" be employed. To indicate the adoption of the *new* standards the statement "U. S. P. X—Revised 1934" may be used.

For the benefit of manufacturers or others who wish to know the approximate relationship between units they are now using and International Units of Vitamins A and D, the following information is provided:

1 U. S. P. X, Sherman or A. D. M. A. Unit of Vitamin A equals 1.4 international or new U. S. P. Units.

1 Steenbock Unit of Vitamin D equals 2.7 International or new U. S. P. Units.

1 International or U. S. P. Unit of Vitamin D equals 3.25 A. D. M. A. Units.

The final standards and detailed methods were perfected by the U. S. P. Vitamin Advisory Board consisting of Dr. Lafayette B. Mendel, Yale University; Dr. H. C. Sherman, Columbia University; Dr. E. M. Nelson, Protein and Nutrition Division, Bureau of Chemistry and Soils, Department of Agriculture; E. F. Kelly, Baltimore, representing the U. S. P. Board of Trustees; E. Fullerton Cook, Philadelphia, representing the U. S. P. Committee of Revision.

Financial

Monsanto Declares Extra

Edgar M. Queeny, president of the Monsanto Chemical Co., announced December 1 that in accordance with the decision of the board of directors employes, as well as stockholders, will participate in the highly satisfactory earnings of the company for the current year. The directors at their regular quarterly meeting declared an extra dividend of 75 cents a share in addition to the regular dividend of 31¼ cents a share. Both dividends are payable December 29 to stockholders of record on December 10.

The directors also voted bonuses to all employes who are not already working under the company's bonus plan. Employes who have been with the company for a year or more will receive a full week's pay December 22nd. Those who have been in the employ of the company for less than a year will receive proportionate bonuses. Executives, technicians, salesmen, foremen, and others whose contribution to the company's earnings can be adequately measured have been working under a bonus plan for the past few years.

Payment of the regular quarterly dividend on December 29th instead of on January 2nd, as has been the custom in the past, will constitute a total dividend payment of $2.31¼ a share for 1933.

In issuing the statement, Mr. Queeny said: "It is estimated that our 1933 earnings will not fall very short of $5.00 a share. Earnings for the first nine months of the year were $1,519,704 or $3.51½ a share. Sales thus far in the fourth quarter have held up satisfactorily and our present position warrants the action of the board of directors. Future dividend policy will depend upon conditions."

Stocks Up 4%

Prices of common stocks of corporations engaged in the drugs and cosmetics industry increased about 4 per cent. in the past five weeks, according to the stock price indexes of the Standard Statistics Co., New York. A comparison of the drugs index with that for 351 industrials over recent weeks follows:

	(*1926 average equals 100*)	
1933	*Drugs and Cosmetics*	*351 Industrials*
Nov. 8	74.8	76.4
15	76.4	76.8
22	77.7	80.4
29	77.4	78.7
Dec. 6	78.0	80.9
1933 High	99.7	86.6
Low	53.9	38.7
1932 High	88.3	61.6
Low	45.0	31.9

Earnings and Dividends

ABBOTT LABORATORIES

Abbott Laboratories has declared the regular quarterly dividend of fifty cents, to be paid January third, to stockholders of record December sixteenth.

It was reported that both the volume of sales and net profits for the September quarter were in excess of the same period last year and that October was the best month in the history of the company. In view of this fact, the directors voted a special Christmas bonus to all present employes who were with the company prior to January first, 1933, amounting to fifteen per cent of October salaries; ten per cent of those employed prior to July first and five per cent to all others.

Since July first there has been an increase of twenty-eight per cent in the number of employes.

COMMERCIAL SOLVENTS

Commercial Solvent Corp., reports for nine months ended Sept. 30: Net profit after depreciation, Federal taxes and other

Will Your Costs Be As Low in 1934 As They Were in 1933?

The rise of prices and of foreign exchange leaves nobody untouched.

But those who are affected least are the ones who have learned the *intelligent* use of synthetic products.

And of course, such products must be exceptional, if they are to be used at all.

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charges, $1,279,365, equal to 48 cents a share on 2,635,684 no-par common shares, against $894,836 or 35 cents a share on 2,530,218 shares last year. Quarter ended Sept. 30: Net profit after same charges, $642,317, or 24 cents a share on 2,635,684 common shares, compared with $412,290 or 16 cents a share on 2,530,371 common shares in preceding quarter and $305,562 or 12 cents a share on 2,530,218 shares in third quarter last year.

EMERSON'S BROMO-SELTZER

Emerson's Bromo-Seltzer, Inc., and Subsidiaries—Six months ended June 30: Net income after depreciation and other charges $640,973, equivalent, after $2 preferred dividend requirements, to 80c a share on 675,543 combined Class A and B common shares.

HAZEL-ATLAS GLASS CO.

Hazel-Atlas Glass Co. reports for nine months ended Sept. 30: Net profit after depreciation, Federal taxes and other charges, $2,098,504, equal to $4.83 a share on 434,474 $25 par capital shares, including treasury stock. In nine months ended Sept. 24, 1932, net income was $1,485,475, or $3.61 a share on 411,065 shares. Quarter ended Sept. 30: Net profit after same charges, $908,331, or $2.09 a share on 434,474 shares, compared with $893,444, or $2.05 a share, in preceding quarter, and $528,632, or $1.29 a share on 411,065 shares, in quarter ended Sept. 24, 1932.

Hazel-Atlas Glass Co. has declared an extra dividend of $1 per share in addition to the regular quarterly dividend of $1 per share, payable January 2 to stock of record December 16.

McANDREWS & FORBES CO.

McAndrews & Forbes Co. reported a net income of $618,843 for the nine months ended September 30, after expenses, taxes and other charges. This was equal to $1.73 a share on 303,894 common shares after 6 per cent. preferred dividend requirements. It compared with $378,039, or 89 cents a common share, for the corresponding nine months of last year.

NESTLE-LE MUR

Nestle-Le Mur Co. reports for year ended Aug. 31: Net profit after taxes, depreciation and other charges, $9,163, equal to 6 cents a share on 144,502 no-par Class A shares, against net loss of $7,094 in preceding fiscal year.

Emerson Stock Change

Emerson's Bromo-Seltzer, Inc., of Baltimore, has changed its capital stock to 1,000,000 shares, of which 100,000 shares are preferred of a par value of $25 a share, 56,000 shares Class A common of $2.50 per share, and 844,000 Class B common of $2.50 a share. At the same time the Emerson Drug Company, of Baltimore, which manufactures Bromo-Seltzer and other preparations, decreased its capital stock from 50,000 shares of common of a par value of $25 to 50,000 shares of a par value of $10. Emerson's Bromo-Seltzer, Inc., is a holding company for the Emerson Drug Company the Maryland Glass Company and other Emerson enterprises, with Joseph Hines as president. The change in capitalization was said to have been made for corporate reasons and does not in any way involve a departure in business methods.

---

89 Seizures in November

Federal Food and Drug Administration initiated seizure proceedings against 89 consignments of foods and drugs during November, reports W. G. Campbell, Chief. The Administration also sent to the Solicitor of the Department of Agriculture recommendations for prosecution of 34 cases. Notification was received from Federal courts of the termination of ten criminal prosecutions of violators. Fines ranging from $10 to $1,000 were imposed.

Seizures for the month also included consignments of medicinal preparations falsely and fraudulently labeled with curative claims for various diseases, including pyorrhea, rheumatic conditions, and anemia.

Pacific Laboratories, Inc., Los Angeles, California, $50. The company violated the food and drugs act in shipping in interstate commerce a consignment of a veterinary preparation, "Pac-Lab Bron-Co. Capsules," which was labeled with salse and fraudulent therapeutic claims. The product was additionally misbranded in that it contained acetanilid and the label failed to bear a statement of the quantity or proportion of this drug contained in the medicine, as required by law. The goods were shipped to a dealer in Chehalis, Washington.

Lester Tilton, trading as Tilton Laboratories and Tilton Laboratories Research (Cancer) Treatment, Clinton, Iowa, $1,000. The defendant was found guilty of shipping in interstate commerce stocks of medicinal preparations falsely and fraudulently recommended for the treatment of many serious diseases. The defendant's attorney has indicated his intention of filing an appeal.

Obituaries

Dr. Joseph L. Mayer

Dr. Joseph L. Mayer, chief chemist of the Louis K. Liggett Co., died suddenly of a heart attack December 1. Dr. Mayer was head of the department of chemistry at the Brooklyn College of Pharmacy. The author of many articles on chemistry and pharmacy he was one of the group which assisted in the revision of the U. S. Pharmacopoeia in 1920. He was a member of the American and Kings County Pharmaceutical associations, the Druggists Association and other technical organizations. He was fifty-eight years old and a native of New York.

J. W. England

J. W. England, secretary of the Philadelphia Drug Exchange and chariman of the board of trustees of the Philadelphia College of Pharmacy, died at his home in Philadelphia, December 2, aged 72. He was one-time head of the pharmaceutical department of H. K. Mulford Co., and since 1902 had been consulting pharmacist to Smith, Kline & French Co.

He was widely known for his researches which covered a broad field in pharmaceutical science, and was the contributor of several hundred original articles to pharmaceutical organizations and publications. In addition he was active in the affairs of numerous organizations, serving as curator of the Museum of the College of Pharmacy from 1887 to 1920 and as a member of the board of trustees from 1892 to 1933. He was a member of the publication committee of the American Journal of Pharmacy from 1893 until his death; was secretary since 1904 of the alumni association of the College of Pharmacy and was president in 1891 and 1892; in 1901 and 1902 was secretary of the section on scientific papers of the American Pharmaceutical Association and chairman of the association's committee on legislation in 1907 and 1908; acting editor of the association's bulletin in 1910 and 1911 and chairman of the committee on publications publishing the association journal and the National Formulary from 1911 to 1920; president of the Philadelphia section of the A. Ph. A. in 1921 and 1922; and president of the Pennsylvania Pharmaceutical Association in 1926. In 1910 he was a member of the committee for the revision of the United States Pharmacopoeia, serving on three sub-committees.

Mrs. Charles H. Pinkham

Mrs. Charles H. Pinkham, widow of a former head of the Pinkham Medicine Co., Lynn, Mass., and mother of Arthur W. Pinkham, president, Daniel R. Pinkham, vice-president, and Charles H. Pinkham, secretary, of the company, died in Lynn, Mass., December 5.

Dr. Alfred Hess

Dr. Alfred Hess, one of the pioneer workers on Vitamin D, and recently author of an article denying the effectiveness of Vitamin A for colds, died December 7.

Eric Holroyd

Eric Holroyd, president of Schliemann Companies, Inc., New York, died in London, England, December 7.

Into the ANTARCTIC *with* ADMIRAL BYRD

REAR Admiral Richard E. Byrd, with a staff of brave and brainy scientists, has once more set his course toward the southern pole. His aim is not to plant another flag on a barren waste of snow, but to wrest from earth, with the tools of modern science, the secrets of a million years.

At the bottom of the world lies a continent larger than the United States, with mountains rivalling the Rockies. Who can say what lies beneath that frigid waste of snow and ice—what fossils may be found that will supply the missing pages in the story of the world's formation, the evolution of its plants, its animals, and its men? Who can say what new light will be shed on the laws that govern physics, radioactivity and weather forecasting; or how that light will disclose the way to new invention, better communication, and safer transoceanic flying?

A supply of Rossville Certified Grain Alcohol for medical and scientific purposes, ready for the trip to the Antarctic on the "Bear of Oakland."

Because Byrd's work is so intensely interesting, we are devoting the next number of our monthly publication, "Alcohol Talks," to a discussion of the aims and methods of Polar explorers. Extra copies will be available.

If you are not already a reader of "Alcohol Talks," we shall be glad to add your name to our complimentary mailing list. Each month's talk deals with an industry, product, or process in which alcohol plays some part. They are entertainingly written in non-technical language.

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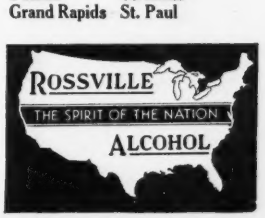


Investigate Quality of Drugs

A warning that so-called "bargains" in drug products, are in many cases dangerous and capable of injuring the health of users, was given here today by George W. Mather, secretary of the New York State Board of Pharmacy. Mr. Mather's warning followed a survey made by State inspectors who had found that 44 per cent of the drug items purchased in cut-rate stores were of substandard quality.

Describing the sale of such dangerous medicinal products as "a health menace that is reaching alarming proportions," Mr. Mather declared that New York State is at present taking steps to stamp out the practice. The survey, originally begun in New York City, is being extended to other cities, while reports are being turned over to the Attorney General to enable him to take action.

The inferior drug products, said Mr. Mather, were found without exception in cut-rate drug and cosmetic shops, the operation of which is rapidly becoming a nation-wide racket. Such products as peroxide of hydrogen, witch hazel, mineral oil, zinc oxide ointment and bay rum were studied first in the move by the New York State Board to stop the dangerous traffic. However, it is planned to extend the survey to cover other medicinal and cosmetic products.

In the case of mineral oils, he pointed out, the cut-rates palmed off oils of very low viscosity as equal to the heavy oils sold by reputable manufacturers. Such low viscosity oils, he said do not have enough body to be of any benefit, and are immediately eliminated without providing laxative effects.

In addition to turning over the results of the survey to the State's Attorney General for legal action against the manufacturers and distributors of such merchandise, the New York State Board has already placed embargoes on such products and confiscated some of the goods.

Cosmetic Code Completed

The NRA Code for the Manufacturing Perfume, Cosmetic and other Toilet Preparation Industry contains many interesting provisions regarding fair competition.

Provisions in the Code outlaw the use of hidden demonstrators, requiring that demonstrators in retail stores be clearly identified to the public. Also the granting of p. m.'s or other gratuities to dealers' employees is forbidden. Furthermore a manufacturer is forbidden from paying a retailer for display inside the store, other than window displays.

Fictitious prices in advertising or on packages is also prohibited. Open prices which are uniform to all distributors of the same class are required for all goods except private brand merchandise, and price lists must be filed with the Code Authority.

Hours for labor in the industry are fixed at a maximum of 40 hours per week. Continuous process employees may be worked 12 hours per day, but only 40 hours per week. Other workers, except pharmacists, chemists, executives, research workers earning in excess of $35 per week, must not be employed over 8 hours per day, with a 40 hour week.

An exception is made for peak periods from September 1 to December 31, during which period employees may be employed for 48 hours per week or more than 8 hours in one day, provided compensation is made at the rate of time and one-third. In any event, the period during which any employee can be employed on the 48 hour basis is limited to 8 weeks of the stated period.

Wages are fixed at minimum of 35 cents per hour, except in the States of North Carolina, Georgia, Florida, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, and Texas, where the rate is 5 cents less.

Junior office employees or apprentices shall be paid at 80 per cent. of the regular rate. Female employees doing the same work as male employees shall receive the same rate of pay. Wages now in excess of the minimum provided in the Code shall not be reduced.

The Code Authority, which is to cooperate with the Administrator, shall contain seven industry members as follows: 3 national advertisers; 2 non-advertisers; 1 private brand manufacturer; 1 member elected by the other six. The six members shall be elected by the national trade associations of the industry.

Packaging Notes

(*Continued from page 556*)

standard automatic production machines without any change of adjustment. All or any portion of the cans finished on the machine can be provided with glass insert tops.

COLOGNE IN FLASKS

■ The masculine packages continue to engage the attention of cosmetic manufacturers. Now that pocket flasks are no longer *de rigeur* for "shock liquid," Charbert is presenting them as containers for the new "Cologne for Gentlemen." This is bottled in an actual pint flask in a leather case and should prove irresistible to the alleged "stronger sex."

A Packaging Laboratory

(*Continued from page 551*)

further safeguarded by reason of the fact that the original package contains an inner seal of paper, which is made as a part of the can and must be broken before use.

As packaging research continues, rehabilitation of the packages of the other Merck products will follow. Already many special products have received individual treatment.

Scientific packaging research, according to Merck, has four major purposes, which are:

1. To develop new containers.
2. To improve existing containers.
3. To reduce cost of containers without impairing quality.
4. To control the quality of containers.

The following factors are the basis upon which containers are developed and selected:

(a) Light protective qualities.
(b) Moisture protective qualities.
(c) Drying-out protective qualities.
(d) Nature of materials comprising the container.
(e) Chemical resistance.
(f) Size of container, air-space, etc.
(g) Strength of container.
(h) Appearance of container.

In order that packaging research may be conducted strictly in accordance with scientific procedure, the new Merck packaging laboratory is equipped with all the necessary scientific apparatus, chemical reagents and special equipment, such as a humidifier for testing the reaction of packaging materials to a moisture saturated atmosphere.

1 pound of PINEALCO yields 20 pints of

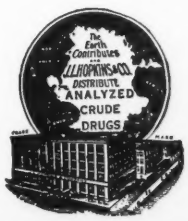
TRADE MARK REG. U. S. PAT. OFF.

SYRUP OF WHITE PINE COMPOUND, N. F.

Not generally known, perhaps surprising, is the fact that there are from 2 to 12 different grades or species of every crude drug in commercial demand. And, correspondingly, from 2 to 12 different prices. In making an effective Syrup of White Pine Compound it is scarcely possible, therefore, for one lot to match another in color and therapeutic value—UNLESS you are sure of getting consistently the highest quality crude drugs.

In PINEALCO (Hopkins) you have a ready-made N. F. Soluble Solid Extract, sure in therapeutic value, uniform every time in color, odor and flavor. The same high quality ingredients are used in making PINEALCO every time.

PINEALCO is so highly concentrated that a single pound will yield 20 pints of Syrup of White Pine Compound, N. F.



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T. L. White Beeswax

T. L. PURE WHITE BEESWAX, Extra Quality, is prepared from the highest and most costly grade of crude beeswax. It is most carefully selected at its source and again, on arrival at the T. L. factory, examined piece by piece. Doubtful pieces are rejected. It is 100% pure and higher than U. S. P. standards.

Throughout the process of bleaching, the original characteristics of the high grade crude beeswax are retained, resulting in a product of extraordinary value to the cream manufacturer. The high melting point and character of T. L. PURE WHITE BEESWAX imparts to the product a very high emulsion value. This property enables the cream manufacturer to use less beeswax in the preparation of the cream and with the assurance that the emulsion is permanent.

T. L. WHITE BEESWAX has been the standard of quality for *over eighty years.* Its constant uniformity gives the best results in making cold cream.

Pioneer Brand Pure Refined Yellow Beeswax

Extra Quality, 100% PURE and higher than U. S. P. Standard. Made from the same high grade crude beeswax as the T. L. Brand, excepting that it is not bleached white. Because of its natural light yellow color it is especially adapted for lemon creams and like preparations.

•

Guaranteed under Food and Drugs Act of June 30, 1906. Serial No. 4068.

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RAW MATERIAL MARKETS

Chemicals
Drugs

Essential Oils
Medicinal Oils

Natural Products
Flavors

Citric Acid Developments

The citric acid market on spot was of routine makeup. Prices however, ruled steady and appeared well entrenched at the low levels that have prevailed now for many months.

To meet the competition of the fermentation acid, citric acid manufacturers in Italy have, it is said, successfully evolved a process for obtaining citric acid direct from lemon juice. If the new method of production proves industrially advantageous and the old process is scrapped, the Italian domestic citrate of lime market will automatically disappear. In that case the Camera Agrumaria in its present form would have no further reason for existence. Furthermore, the formation of a citrus corporation, as suggested by the Third National Citrus Congress recently held in Rome, would in itself render the existence of the present Camera Agrumaria unnecessary. Inasmuch as the entire question of the formation of commodity corporations, their scope and functions, is just now being worked out, the Government is apparently awaiting the solution of this issue, as well as the outcome of the new departure in citric acid manufacture, before undertaking the reorganization of the citrus industry as a whole, and the Camera Agrumaria in particular. (Trade Commissioner Elizabeth Humes, Rome).

The Camera Agrumaria reports citrate of lime stocks on hand as of September 15, 1933, amounting to 5,231,972 kilos.

Mercury Up Again

Mercury was again advanced now being offered at from $68.00 to $69.50 per flask. Stocks continue small and in firm hands. Import costs were also higher and the market abroad seemed well controlled. Domestic production has not as yet increased to any great extent.

Mercurials reflected the strength in raw material, the situation being such as to suggest a rise in quotations if the price is to be kept in line with production costs.

Strychnine Firm

The strychnine market was well supported on the basis of the advance in prices recorded during the last period on sulphate and alkaloid. This placed the item on a basis that shows some profit to producers.

Prices and Imports

In a later issue, reviewing the price history of 1933, we shall compare changes in drug and cosmetic prices with the general price level, indicating to what extent currency manipulation can cause greater changes in some items than in others.

Meanwhile, recent activity in prices has now raised the average of prices for 50 commodities to 63.0 the highest since November 1931. This contrasts with 61.2 in November.

Medicinal chemical price indexes increased to 65.7 in December from 65.1 in November. Bismuth, cod liver oil, mercury and mineral oil increased in price while iodine, due to sterling fluctuation, was lower.

The botanicals index, at 74.1 in December, is at the same level as it was in July 1932. All changes in the index products were upward, increases being shown by agar, aloes, senna, belladonna, buchu, digitalis and rhubarb.

The essential oil Index increased 3 points in December to 53.2, the highest point since January 1931. No declines were registered while five oils, bois de rose, eucalyptus, geranium, lavender and sandalwood were higher.

The cosmetic raw material index was also higher, being 66.0 in December compared with 64.8 in November. Increases were exhibited by balsams copaiba and Peru, beeswax and candelilla, glycerin, mineral oil and petrolatum.

Adjusted imports of essential oils were indexed at 131.0 for quantities and 66.3 for values in September. Botanicals in September showed relative quantities of 120.7 and values of 63.5.

Alcohol Consumption Heavy

New alcohol price schedules for the first quarter of 1934 have not as yet been announced but are expected shortly. The outlook tended toward an advance rather than otherwise as practically all raw materials are tending upward. Demand for anti-freeze in most parts of the country has been good.

Quotations now prevailing on the principal formula are as follows:

	Carloads drums	*Single drums*
No. 1 Spec.	.335	.415
No. 5 Comp.	.34	.42
23A Spec.	.37	.49
39B Spec.	.38	.50
40M Spec.	.34	.46

Prices quoted are f. o. b. works.

Consumption of ethyl alcohol continued very heavy and production was said to be sold ahead for many months. Prices were very strong and consumers who wished to place orders for prompt delivery for alcohol made from grain found difficulty in doing so.

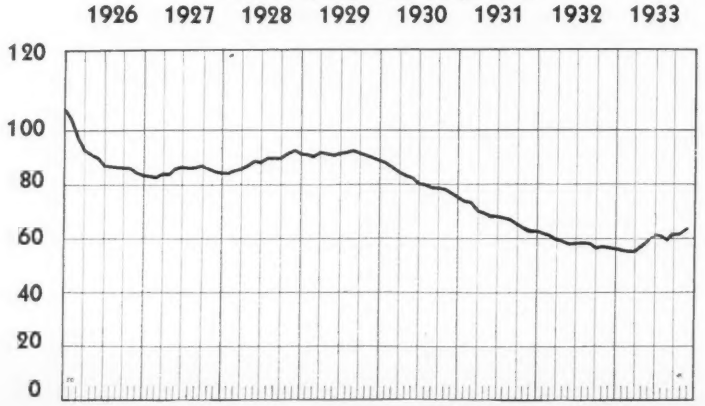
Bismuth Salts Strong

With bismuth metal advancing to $1.40 per pound the salts took on a much firmer tone. The salts have yet to fully reflect the higher prices paid by the producers for raw material. The movement of salts was up to normal volume.

Chrysaborin Higher

A general advance in chrysarobin took place when importers raised the level $1.00 per pound and set a new figure of from $3.50 to $3.55 for spot deliveries. Higher exchange caused rise in import costs.

50 Raw Materials—Weighted Index
1925 Average Prices Equal 100



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Formulas and manufacturing methods of yesteryear, so satisfactory then, are ill suited to the needs of today.

Science, ever studying and improving upon past performances, can point out a modern day procedure in selecting materials which could easily reflect to the advantage of your products in competition and in increased sales.

Our laboratory research staff with its trained personnel is ever on the alert for data that will assist you in producing the best finished materials possible. The success of their efforts is amply demonstrated by our steadily growing list of **regular** customers for all MM&R products.

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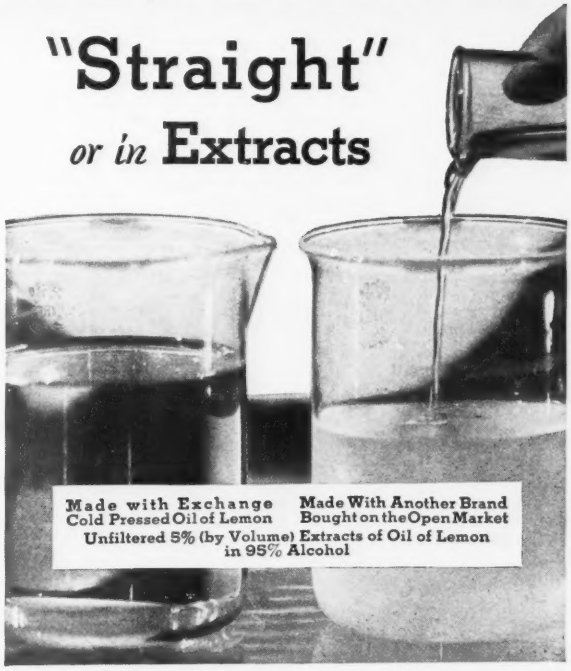
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Unfiltered 5% (by Volume) Extracts of Oil of Lemon in 95% Alcohol

BE SURE IT'S *Clarified!*

IF YOU make alcoholic extracts, you will of course use Exchange Brand Clarified Oil of Lemon. Only thus do you get a clear, lemon-yellow solution—without delay, without filtration, without waste.

If you use Oil of Lemon "straight" there are equally good reasons for using only the Clarified product. For in clarifying, we remove insoluble substances from the oil and so improve its desirable characteristics.

In flavor, in color, in aroma—Exchange Brand Oil of Lemon is unexcelled.

It is uniform in performance. Stable in your finished product.

Almost without exception, those who test this new Oil of Lemon standardize on it. And not alone because of the saving in cost. Try it in your own product, and let results give proof.

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CALIFORNIA FRUIT GROWERS EXCHANGE
Products Department, Ontario, California
Producing Plant: EXCHANGE LEMON PRODUCTS CO., Corona, Calif.

Copr., 1933, Products Department, California Fruit Growers Exchange

Menthol Steadies

The spot market for menthol was somewhat steadier during the past trading period. No open price changes were noted the range being continued at from $2.50 to $2.70 per pound as to quantity.

During the period some time back when menthol was offered for shipment in the primary market at low figures, certain outside interests bought material and are now in a position to offer at below the prices generally quoted by the regular import factors. Although each holder carries but a comparative small quantity of material in the aggregate the amount is sufficient to cause some unsettlement here being in excess of what the present consuming market can readily absorb. The leading importers have therefore had to meet this competition with price shading.

Camphor Prices Higher

Camphor prices are higher on spot. The elements of strength are the squeeze on domestic stocks which are light in this market and the continued high cost of replacement supplies. It is said that heavy shipments were made to India which further depleted stocks at the source and helped create the firmness displayed in Japan.

On spot slabs and powder sold at from 55c to 56c per pound as to quantity with tablets offered at from 60c to 61c per pound.

Chloral Hydrate Advanced

Chloral hydrate U. S. P. was advanced 10c per pound and is now quoted in 100 pound drums at 85c per pound and in 25 pound jars at 90c per pound. Leading factors are quoting contracts over a period of six months.

Quinine Duty Off

In order to facilitate the entry of remedies for malaria, a law (No. 7766) was passed by the Peruvian Congress on May 18, and was promulgated by the President on May 24, exempting from import duty and additional taxes quinine and its salts, as well as the various forms of quinine pharmaceutical products and serums for medical use, according to a report dated June 23, from Commercial Attache Merwin L. Bohan, Lima. (The import duty on pure quinine and its salts was 40 soles per net kilo, and on normal animal serums, 20 per cent. ad valorum).

Glycerin Higher

The advance in C. P. glycerin that has been generally expected for some time now has finally been put into effect. On spot the price was 11c per pound, this representing the first upward trend in many months. Demand has improved and there was a total absence of foreign competition.

Cod Liver Oil Up Again

Spot prices for cod liver oil were again advanced. The range is now from $29.00 to $32.00 per barrel as to quantity and brand offered. The movement was caused by the rise in foreign exchange. An exceptionally good spot demand also helped strengthen undertones of the market and although supplies are said to be ample they are not heavy when viewed from present consumer request.

According to a Consulate report from Bergen the cod fishing ended during the middle of June, bringing the cod liver oil plants along Norway's west coast to a close-down until next January. Small quantities of raw oil are still being produced, but the total production during the third quarter is not sufficient to affect market conditions.

Exports of steamed medicinal cod liver oil during the third quarter of 1933, as against the corresponding period of the two preceding years, were as follows: 1931, 831,480 gallons; 1932, 1,083,090 gallons; and 1933, 984,120 gallons.

According to invoices certified at the United States Consulate at Bergen during the third quarter of 1933, exports of steamed and crude medicinal cod liver oil, poultry and veterinary cod liver oil to the United States from Bergen and Aalesund showed an increase in comparison with the exports of the corresponding period of 1932. The figures follow: 1933 (July-Sept.), 608,016 gallons valued at $341,670; 1932 (July-Sept.), 514,225 gallons valued at $240,060.

Exporters claim that the uncertain conditions on the foreign-exchange market have induced buyers who usually lay in their stocks for the winter during the third quarter to postpone their purchases, which has resulted in a slack market. During the latter part of the third quarter there were indications of a return of the buyers.

According to the *Weekly Herald* and *Newfoundland Trade Review* of October 28, 1933, prices of Newfoundland cod liver oil have improved because of the falling off in the fall fishery. "There has been no noticeable improvement in price in the foreign markets as yet, and it may be said that the higher local price is really due to the desire to encourage producers to operate their factories in order to have as much oil as possible available for the English market should the demand from there increase, now that the preferential duty proposed at the Ottawa Conference is an accomplished fact. So far, little benefit has been derived from this agreement, mainly because English buyers had warning of the proposed duty and stocked up heavily with foreign oil. English buyers are reluctant to pay any premium in price for Newfoundland oil, even though admitting its superior quality."

Acetphenetidin Up 10c

Prices on acetphenetidin were advanced 10c per pound, this representing the first price change in this commodity for several years. For prompt shipment the quotations ranged from $1.30 to $1.35 per pound. The movement was in line with higher manufacturing costs. Inquiry was active after the rise. Contracts are being entered over a six months period.

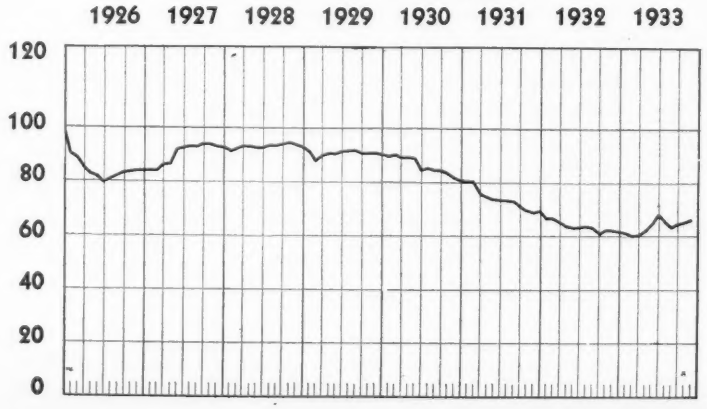
Certified Colors Advanced

Producers of certified colors announce the following price advances:

	1 lb. cans	*5lb. cans*
Amaranth No. 107	$2.90 lb.	$2.80 lb.
Ponceau 3R No. 56	6.00 "	5.75 "
Tartrazine No. 94	2.90 "	2.80 "

The move reflected the general advance in raw material prices and to bring these items in line with the higher cost of production.

15 Medicinal Chemicals—Weighted Index
1925 Average Prices Equal 100



SALICYLATES

SALICYLIC ACID — **SODIUM SALICYLATE**

ACETYL SALICYLIC ACID

METHYL SALICYLATE — **MINOR SALICYLATES**

FORMALDEHYDE

PARA FORMALDEHYDE

HEXAMETHYLENETETRAMINE

Benzoate of Soda
Benzoic Acid
Benzaldehyde
Benzyl Chloride

Guaiacol
Calcium Guaiacol Sulphonate
Potassium Guaiacol Sulphonate

Bromides
Silver Salts
Creosote
Creosote Carbonate
Glycerophosphates

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Anise Oil Unchanged

Anise oil prices remained without open change on the spot market. U. S. P. was offered at from 46c to 49c per pound. While undertones were strengthened by the higher replacement market the actual volume of business done here did not warrant placing this item at a higher level that would more fully reflect the cost to import. Stocks continued moderate in size.

Consul Quincy F. Roberts, Saigon reports that the anise tree (Illicium Verum, Hook) is the only essential-oil plant cultivated to any extent in Indo-China. It is grown in upper Tonkin, particularly in the Provinces of Langson and Caobang.

The industry is largely a native one, but at Langson there is a plant for refining oils produced by the local stills or by the Chinese.

Exports of anise oil since 1930 have been as follows:

Year	*Metric Tons*	*Value in Francs*
1930	240	4,803,000
1931	182	3,093,000
1932	82	1,312,000

Practically all the exports during the last three years have gone to France. Small shipments have been made to Hong Kong.

Cassia Oil Firm

Most sellers of oil cassia reported an exceptionally firm market for this material. Although spot quotations were not advanced above the prevailing level of from $1.15 to $1.20 per pound the import position was such as to warrant an advance. Demand was fair throughout the past trading period.

Juniper Oil Demand Up

A steady and very good demand contributed to the support of oil juniper. Considerable oil was bought for future delivery so that a prolonged shortage is not expected. The better grade oil was in demand and advanced to $3.25 per pound with the lower quality remaining unchanged at $1.50 per pound.

Oil Spearmint Stronger

With primary holders being less inclined to press material on the market, oil spearmint took on added strength here. There were no open price changes, quotations through the past month ranging from $1.15 to $1.35 per pound as to seller, but the feeling was more or less general that an advance would not come as a surprise.

Camphor Oil Higher

Camphor Sassafrassy was 1c per pound higher on spot at from 16c to 18c. Undertones at the new level were firm reflecting the replacement position. Demand continued fair.

Peppermint Oil Holds

Despite the prolonged period of inactivity, peppermint oil held its own during the past month, with local dealers continuing to quote from $2.40 to $2.80 per pound for natural oil and from $2.75 to $3.00 for redistilled. Reports from the primary market indicate a firmer tendency there with some shippers advancing prices 5c per pound.

Angelica Oil Up Sharply

With only exceptionally small quantities of oil angelica being available in the spot market certain holders have advanced prices to as high as $78.00 per pound. Consumer buying during recent weeks has further depleted stocks here and inquiry for replacements disclosed a similar position abroad.

Petit Grain Up 5c

Petit grain was advanced 5c per pound being quoted at from $1.30 to $1.40 per pound, the position reflecting the marked strength in replacement values and the absence of many offerings from the source. Movement was moderate here.

Bois de Rose Strong

A further strengthening was noted in bois de rose. It is expected that very little material will be shipped from meagre stocks in Brazil and this grade was up on spot 10c per pound to the basis of from $1.30 to $1.40. The few sellers of Cayenne oil also asked more last month the range being from $2.70 to $3.20 as to quantity and seller.

Nutmeg Oil Up 10c

Oil nutmeg was advanced 10c per pound by leading dealers the spot market now ranging from $1.20 to $1.25 per pound. At the old level the market was said to be too close to cost.

Bergamot Stocks

It is estimated that on October 4 the available Italian stock of bergamot oil was about 40,000 kilograms; and the approaching new production (October) is expected to be about 40 per cent. less than last year, when the production is said to have been approximately 200,000 kilograms.

It is rumored that the old stock of bergamot oil ex Bergamot Consortium has been disposed of to a varnish trader in Rome, who has paid for the entire stock (which cost the Government over 5,000,000 lire) the sum of 150,000 lire, or 3 per cent. of the cost. (Consul Ernest E. Evans, Naples).

Lavender Oil Scarce

Oil lavender continued scarce as heretofore and the spot market was again higher. The 30 per cent. ester material was offered at $2.75 and the better grades ranged as high as $4.50. There is not likely to be any easier tendency displayed in this material until another crop can be harvested.

Birch Tar Oil Easy

Shipment costs for birch tar oil were firm and but for the absence of a steady call for this item would be reflected in the spot market prices. The range was from 60c to 65c per pound for rectified oil and from 13c to 14c for crude.

Caraway Oil Up Sharply

Import costs justified higher prices for caraway oil so that leading factors in this item advanced quotations rather sharply to the basis of from $2.05 to $2.25 per pound.

Apricot Kernel Oil Up

Apricot kernel oil was higher and firm at the new level which ranged from 22c to 25c per pound. This was in line with the trend of agricultural products from the West Coast. Demand was fairly active.

15 Essential Oils—Weighted Index
1925 Average Prices Equal 100

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Balsams Firm

The Balsams continue in a very firm position. Copaiba is up again, para being quoted at from 30c to 32c per pound. The strength is based on small stocks and difficulty in placing shipment orders in the primary market. Demand has improved since the item became scarce.

Imports of balsam of copaiba into the United States during 1931 and 1932 amounted to 176,000 pounds valued at $18,300, and 118,000 pounds valued at $8,000.

Peru balsam has also been advanced again now being offered at from $1.20 to $1.25 per pound. Stocks on spot are conservative and there is an absence of weakness in the primary market.

Vanilla Beans Steady

Although French exchange eased somewhat last month this had little or no effect on the price of Bourbon Vanilla beans. Leading importers were able to show costs that would curb any tendency to lower prices. In fact the best grade of prime beans were very firm at the higher levels noted last month. The range was from 80c to $1.40 a pound as to quality.

Although little business has been done in Mexican beans, certain large factors here were inclined to hold rather than offer at any concession that would put this grade in a more competitive position with the Bourbons. Their attitude is based on the fact that the 1933-34 crop of Mexican beans will be small—not over 80,000 pounds of whole beans—which is much less than usual. The unsold supply of the present Mexican crop is small. Curers are now buying the next crop for delivery in July and as prices are still high it is unlikely that when this material is offered for shipment it will be at any price lower than is now named.

Hydrogen Peroxide Up

Due to the increased cost in packing materials it was necessary for leading factors in hydrogen peroxide U. S. P. to revise prices on subdivisions. Prices are now quoted in 350 pound barrels at 3¾c per pound, 90 pound carboys 4¾c per pound and 40 pound carboys 5½c per pound.

Vetivert Supply Small

Bourbon vetivert oil is in small supply and local dealers are in receipt of higher cables. As high as from $8.75 to $9.00 was asked in the spot market.

Mace Oil Firmly Held

Oil mace was firmly held on spot at the higher levels noted of from $1.25 to $1.30 per pound.

Tragacanth Steady

Gum tragacanth is without new feature on spot. The higher prices that have prevailed for this item for several months now are being maintained in all respects due to the continued strength in the primary market.

For a period prior to August 1932, prices of Turkish gum tragacanth are reported to have kept on a firm level, but in September 1932, following arrivals of the 1932 crop, prices immediately dropped 10 to 20 per cent. and subsequently followed a steady decline which by May 1933 brought them to 40 or 50 per cent. below the level of August 1932. The decline is stated to have been due to competitive activities displayed by the Soviet trade delegations in connection with the sale of Persian gum tragacanth. Istanbul merchants report that by virtue of the commercial agreement which was concluded in 1932 between Soviet Russia and Persia, the Soviets purchased, toward the end of 1932, by far the larger portion of Persian stocks of gum tragacanth, which they consigned to Hamburg and offered to foreign consuming markets 50 per cent. below the original cost. Gradually, however, as the Russian stocks in Hamburg became largely depleted and poorly assorted, the Soviet commissions were obliged to look to Turkish sources for replacement stocks for their consignment in Hamburg. Thus, prices of Turkish gum tragacanth were reported to have increased by about 10 per cent. since the beginning of May.

Persia has supplied in recent years much larger quantities of gum tragacanth than other neighboring countries and is believed to have produced in 1932 about 4, 410,000 kilos. Syrian gum tragacanth production in 1932 is estimated in Istanbul at about 800,000 kilos. Iraq, India, and China are also stated to offer substantial quantities to the world market. (Commercial Attache Julian E. Gillespie, Istanbul).

Gum Arabic Quiet

Demand for gum arabic lagged somewhat during recent trading but strength in foreign exchange checked any tendency toward lowering replacement costs. The spot market was therefore firm at unchanged levels.

A report from Cairo to the Department of Commerce states that total arrivals of gum at all gum markets in Kordofan during August amounted to 481,400 pounds, and the total arrivals at El-Obeid market amounted to 330,000 pounds.

The average price per kantar at El-Obeid station was approximately 20 per cent. higher than that prevailing in August of last year, and the total value of gum sold at El-Obeid during the month amounted to 768 Egyptian pounds.

There is little foreign demand, and arrivals have practically stopped at all stations except at El-Obeid and Nahud, where small quantities continue to come on the market.

Quantities and value of gum exported from the Sudan during August 1933 and August 1932 respectively were 1,237 tons valued at 29,760 Egpytian pounds and 1,431 tons valued at 31,350 Egyptian pounds.

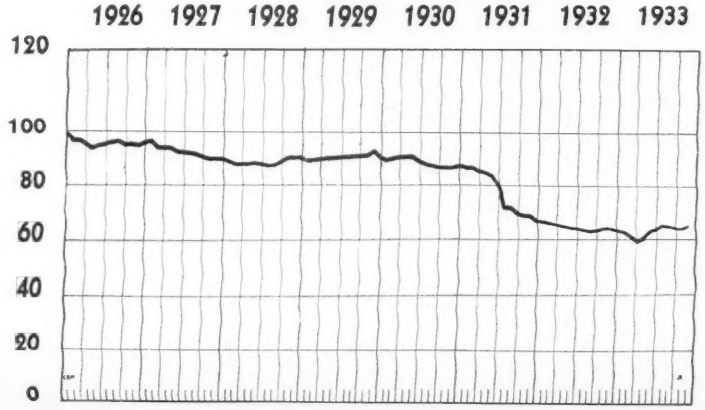
Clove Oil Firm

Movement of clove oil was in line with volume established in recent trading. The undertones of the market were quite firm in keeping with raw material costs and position of Sterling exchange. U.S.P. oil in cans ranged from 95c to $1.00.

Mustard Oil Up

Artificial mustard oil advanced 5c per pound and is now being quoted at from $1.85 to $1.95 per pound as to quantity. The market gathered further strength due to the fact spot stocks are not large.

25 Cosmetic Raw Materials—Unweighted Index
1925 Average Prices Equal 100



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Candellia Wax Up 1c

Candelilla wax was advanced 1c per pound during the past month and is now quoted at from 11c to 12c per pound. Europe is said to have been a heavy buyer in the primary market and as a result prices were run up there. Stocks in Mexico were said to have been about cleaned out by European buyers and it is said they turned to this market when it became impossible to place orders in Mexico. The undertones in this market, therefore, were quite strong at the advanced levels.

Tonka Beans Up Again

With stocks of tonka beans very low the spot market continued to advance to still higher levels. Angostura sold at the new high range of from $2.50 to $2.75 per pound. Surinam was also higher at from $1.50 to $1.60. Demand for this item never runs very heavy but the small stocks available are in but a few strong hands.

Gum Benzoin More Active

A slightly more active market was noted for gum benzoin. Quotations for Sumatra ranged from 22c to 24c per pound as to quantity while Siam gum prices ranged from $1.05 to $1.50 per pound as to quality, and seller. The Siam gum was unproductive of more than jobbing request.

Gum Mastic Firm

Quotations on gum mastic were firm in keeping with the replacement position of the item but the market was subject to an irregular request with total business comparatively light. Prices ranged from 37c to 40c per pound as to seller and quantity.

Gum Sandarac Dull

Not much interest was displayed in gum sandarac during the past month. Spot prices held firm at from 48c to 50c per pound, however, because stocks were moderate in most directions. The replacement market is also said to be somewhat higher than the present prices in this market so that if even a slight increase in consumer request is noted the market is likely to advance to at least the point where it would truly reflect the primary market price.

Carnauba Wax Strong

The carnauba wax market continued very strong. Spot prices were practically nominal in view of the almost total absence of stocks here and the fact that very little unsold merchandise is due for arrival for some time in the future. It is still as difficult as ever to obtain offerings in the primary market where the situation was further strengthened by the activity displayed on the part of European buyers. About 32c per pound was wanted here for No. 1 wax.

Psyllium Seed Quiet

Very little interest is being shown in psyllium seed. The demand for this item has fallen off considerably and as a result lower prices prevail on spot. The French variety could be obtained at from 13c to 15c per pound and the blond from 5½c to 6c. It was also stated that on a sizable order slightly better than these prices could be done. Importations have also been heavy so that there is a surplus of unsold goods in this market.

When asked the reason for the decline in interest in this material one of the leading importers stated as his opinion that the low prices at which the item was offered for sale to the consuming public as a laxative made it impossible to obtain a sufficient profit to warrant the expenditure of the necessary amount of money to push the sale through adequate advertising. This material is in direct competition with other extensively advertised laxatives and is thus feeling the competition from these other items.

Consul General John A. Gamon, Marseille reports the psyllium crop harvested in France (1932-33) is estimated on good authority to be in the neighborhood of 500 tons, of which 100 to 150 metric tons have already been sold. The holdover from the 1932 crop is estimated as amounting to 1,000 to 1,200 metric tons.

Exports of psyllium seed to the United States, which is the principal buyer from from the Marseille consular district, during 1931-32 and the first 9 months of 1933 are as follows:

Year	*Pounds*	*Value in dollars*
1930	2,026,596	464,445
1931	1,180,081	229,837
1932	1,287,160	154,421
Jan. to Apr. 1933	530,987	36,022
May to Sept. 1933	317,776	33,283

Owing to the reduced price the plantings will probably be small for the coming year. If the market for psyllium falls off, providing the market for other seeds is normal, there is a switch to the planting of flower and vegetable seeds.

Manna Sharply Higher

One of the features of the botanical market was the sharp advance in the price of manna. Foreign costs were such as to make it difficult to import and sell at a profit on the basis of prices readily obtainable here. Large flake was up to from 90c to 95c per pound and small flake sold at from 70c to 75c. Stocks were very small on spot and the replacement market in a similar position.

Vice Consul David H. Buffum, Palermo, reports that manna gathering in Sicily this year has been continuously disturbed by adverse weather conditions. This crude drug, employed in medicine as a laxative and source of mannite, has been for many centuries cultivated in Sicily, stated to be at present the only commercial source.

Sicilian weather during August and September, the most important months for the gathering of manna, is usually much drier and with longer spells of fine weather than has been the case this year.

The shortage of the new crop is partially offset by stocks of last year's gatherings, calculated as amounting to about one quarter of what has been the average annual export of this commodity during these last few years. Average annual production of manna reaches 6,700 quintals.

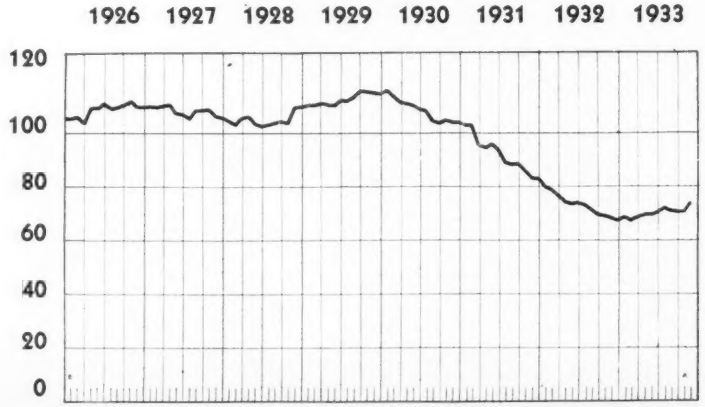
Cape Aloes Higher

Cape aloes was higher at 10¼c to 11c per pound. Curacao was rather dull as to demand with undertones steady, reflecting the primary market position. There was no spot change on this grade. Socotrine was also firm but in little demand.

Henbane Advances

Henbane business was done at higher levels. This item advanced to the basis of from 21c to 22c per pound, reflecting the increased cost of replacement stocks. The entire situation was adverse to the interest of manufacturing consumers.

15 Botanicals—Weighted Index
1925 Average Prices Equal 100



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Agar Agar Advances

Rise in import costs resulted in higher spot prices for agar agar. Number 1 sold at from 55c to 58c per pound and number 2 at from 50c to 53c. Prices held firmly at the new level during late trading although demand was said to be close to actual requirements.

Collection of seaweeds in Japan for conversion into agar agar proceeded at a moderate rate throughout the third quarter of 1933. Activity was diminished by a slump in demand and prices, and revised estimates indicate that production will be slightly smaller than forecast last July. Production in 1932 was 3,300,000 pounds, including 2,662,000 pounds in strips for export.

Weather uncertainty, in addition to a lack of exact information on the amount of seaweeds now being gathered, renders estimates of total production highly conjectural.

Unexpected privately held agar agar coming to light during the third quarter of 1933 showed previous estimates of carry-over to be too small. Surveys made on September 30, 1933, indicated that stocks then were approximately 666,667 pounds, a figure greatly in excess of anticipations. Stocks were divided approximately as follows: "Kobe" quality, 466,667 pounds; "Yokohama" quality, 200,000 pounds.

A surfeit of stocks, combined with slack demand both at home and abroad, depressed prices and diminished sales during the quarter. Domestic consumption, never important, was markedly off.

There was a tendency among foreign buyers to purchase a larger proportion of the cheaper "Yokohama" grade agar-agar in preference to "Kobe" quality, probably because of the ability to refine the product further in the country of importation. At present the ratio of "Yohokama" quality exports to "Kobe" quality exports is about 40 to 60.

Exports during the third quarter of 1933 (565,333 pounds valued at 628,601 yen) were about 36 per cent. smaller than during the second quarter of 1933 (891,800 pounds valued at 932,681 yen) and were more than 16 per cent. smaller than the figure recorded in the third quarter of 1932 (677,867 pounds valued at 773,242 yen). However, as a reuslt of activity during the two preceding quarters of 1933, exports for the first 9 months of 1933 (2,477,333 pounds valued at 2,712,660 yen) are slightly higher than for the corresponding period of either of the two preceding years. (Vice Consul Walter P. McConaughy, Kobe).

Anise Seed Up

Spanish anise seed was higher at from 15c to 15½c per pound. The advance in exchange tended to increase import costs. No change was noted in Star anise.

Ipecac Firmer

Undertones in ipecac firmed up during the past trading period although no open changes in price were noted. This item has been dull from a demand standpoint for some time now but is entering the period of increased consumption and is reflecting this condition. Whole material sold at from 75c to 80c and the powdered from 85c to 90c.

Euphorbium Up 2c

The euphorbium gum market was advanced 2c per pound to the basis of from 19c to20c. It was said that the market should be still higher when judged by replacement values but the movement has lagged because of the absence of sizable demand. Spot stocks were said to be light.

Rhubarb Up Sharply

Rhubarb was advanced sharply during the past month. High Dried material was up 5c per pound to the basis of from 25c to 26c and the powdered material sold at from 28c to 30c per pound. The advance reflected the primary market position.

Gum Myrrh Up Again

Gum myrrh advanced further. Spot was on the basis of from 25c to 26c per pound with sellers reserved in undertaking to engage stocks well into the future. Pressure was noted in the replacement market. Most demand last month was for jobbing account.

Digitalis Advanced

Digitalis was advanced again now being quoted at from 32c to 34c per pound. Inquiry increased and tended to support prices locally. Stocks are now large here and are in strong hands who watched the replacement situation carefully.

Lavender Flowers Strong

Prices for lavender flowers were strong on spot even though the demand was not active. Replacements were not offered freely, the primary market being reserved throughout the entire trading period. Ordinary flowers sold at from 30c to 32c and select higher at from 40c to 42c.

Lobelia Stocks Small

Stocks of lobelia here continued small as shipments of ample supplies from the primary market have not as yet arrived. The herb was higher at 40c to 45c per pound and the seed at from 40c to 42c.

Buchu Priced Higher

Rise in Sterling exchange increased the cost to import buchu. This was reflected in spot market prices which advanced to the basis of from 22c to 24c per pound.

Cascara Points Higher

The future outlook for cascara sagrada would seem to indicate higher prices for this item. There is but a small quantity of unsold material on the Pacific Coast and as European manufacturers have been buying rather heavily an acute shortage is expected to develop before another peel is available. New crop sold during the month at from 9c to 10c per pound, 1932 crop at from 10c to 11c and 1931 crop at from 11c to 12c.

Bayberry Bark Firm

Bayberry bark showed firmness, notwithstanding the fact demand was dull most of the past month. The fact was little or no bark was collected last summer and the conservative carryover must supply the consuming needs until another crop can be collected next year. Prices were very steady at from 7c to 8c per pound.

Stramonium Tending Up

Stramonium is still tending upward. Leaves sold higher at 15c to 17c per pound. Cables from abroad indicated increased strength there as supplies were small and exchange higher in relation to the dollar. Stocks on spot were offered cautiously as replacements would undoubtedly have to be made at higher levels.

Pyrethrum Crop Larger

Pyrethrum production in Japan during 1933 totaled 6,355 long tons, as compared with 6,000 tons in 1932 and 5,600 in 1931. The mainland crop was 3,300 tons and that of Hokkaido 3,055 tons, while the average yield per acre was 806 and 254 pounds, respectively.

Exports for the first 9 months of 1933 show United States as the destination of 87 per cent. of the total, in contrast with 92 per cent. in 1932 and 67 per cent. in 1931.

First 9 months	*Total pounds*	*To United States pounds*
1931	3,148,667	2,098,933
1932	9,479,067	8,672,133
1933	7,733,200	6,677,733

Stocks in Japan, as of September 30, 1933, were estimated at 4,400 long tons. The carry-over from 1932 was entirely liquidated in the third quarter, and a considerable portion of the new crop was either exported or domestically consumed. As the Japanese people become increasingly educated to the use of insecticides and smudge stocks, domestic demand constantly becomes heavier. It is estimated that nearly 50 per cent. of the current crop of pyrethrum will be consumed in Japan. (Vice Consul Walter P. McConaughy, Kobe).

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Tugwell Bill Goes To Bat

(*Continued from page 576*)

Mr. Parlin also called attention to a provision which was carried over from the present Food and Drugs Act which he said should be eliminated. This is Section 17 (e) in the new bill which states that a dealer shall be exempted from prosecution if he establishes a guaranty by the person residing in this country from whom he bought the goods that the person assumes full responsibility. This, he stated, would actually require a retailer or wholesaler to carry, perhaps, 30,000 guarantees. This is not done, said Mr. Parlin, and if the retailers ever realized it was in the law they would storm the hearing to prevent its inclusion.

Ray C. Schlotterer, Secretary of the Drug & Chemical Section of the New York Board of Trade, stated that the bill is anti-NRA for the reason that it will upset labor conditions in the industry at a time when a drive is being made by the NRA to increase employment. He also stated that he had conducted a survey of 100 chambers of commerce and boards of trade in various cities throughout the country. The results of some sixty answers showed that at least fifty-five of the boards of trade found no public demand for the measure in their localities.

In answer to Mr. Schlotterer, Robert Lind of the NRA, stated that the bill is well in line with the policies of the NRA since the codes provided for the various industries and trades included agreements on quality as well as on price.

Also in answer to Mr. Schlotterer, Thomas Elliott, associate counsel of the Department of Labor, stated that the bill was not opposed to labor because work would be found for labor even though less work was available in those concerns which exist through their ability to make profit out of worthless goods which they sell to the laboring class. Labor would be much better off, he said, if such companies were put out of business.

Mrs. William Dicks Sporborg, of New York, was the first speaker representing the consumer. She offered five amendments to the bill:

1. Opposed to quantitative formulas on labels which mean nothing to consumer. Wants effect of drugs on label.
2. Wherever user appears throughout the bill, it should be preceded by the word "average," to care for allergic patients.
3. Opposed to the excessive power granted to the Secretary, since he would have to be a super-man if he were to properly discharge all the responsibilities which he is supposed to discharge. Proposed a board.
4. Against inspection of plants because of likelihood of graft as during days of prohibition.
5. Wants a law which is punitive in some cases only.

Professor of Law (Duke University) David F. Cavers, who is generally believed to have actually written the Tugwell Bill, was the final witness at the hearing, delivering a rebuttal for the Government. Professor Cavers said that in instances where the Administration had attempted to make the bill flexible, the charge was made that it is too broad; in instances where the bill is specific, the charge is made that it is too rigid; and where the bill has been made both flexible and specific by turning over the power to the Secretary, the charges of bureaucracy are made. He claimed that there were attempts to exaggerate the effect of the grants of power, and that some grants of power were made to exempt industry when necessary, while others are to make a formal act.

Defending the voluntary inspection provision, Mr. Cavers said that this was thought to be the best method of starting an inspection service, as otherwise a whole army of inspectors would have to be released overnight.

He felt that it was better for the industry to have the provisions of the law against deterioration of drugs than to wait for damage suits. He thought that the power given to the Secretary to change U. S. P. and N. F. tests would be rarely used if the revision committees kept abreast of medical developments.

He said that if one-quarter of the energy expended in opposing the act had been used in aiding in the preparation of the Bill, there would have been no necessity of holding a hearing.

There is bound to be some miscarriages of justice under any legislation, concluded Professor Cavers.

Industry's Books

Aromastoffe, by Alfred Wagner, 322 pages, Verlag von Theodor Leipzig, Dresden-Blasewitz, Residenzstrasse 32, 20 marks.

A technical handbook, in German, designed for and valuable to chemists working with aromatic chemicals.

Introduction to Dermatology, by Sutton and Sutton, C. V. Morsby & Co., St. Louis, Mo., 560 pages, $5.00 net.

This book by Dr. L. Sutton and his son Richard L. Sutton Jr. is one of the most comprehensive yet simple discussions of dermatology we have seen. The anatomy and physiology of the skin is clearly described and the various skin diseases are individually treated in separate chapters. The presentation of the material is sufficiently non-technical so that the book will form a useful volume in the library of every cosmetic manufacturer.

Sales Management Today, by J. Russell Doubman, 324 pages, Sears Publishing Co., New York, $3.00 net.

Gives the groundwork upon which the management of a sales organization depends and provides a starting point for those who manage salesmen. It also explains methods for those who wish an understanding of the procedure which they are now employing.

The Master Key to Health, by Rasmus Alsaker, 416 pages, Sun-Diet Health Foundation, East Aurora, N. Y.

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ABSTRACTS OF A. Ph. A. PAPERS

Co-Fe-Cu Fluids as Applied to U.S.P. Tests

H. V. Arny and A. Taub.

Report of study carried on at request of U. S. P. sub-committee on organic chemicals of colors produced in performing test of U. S. P. IX for "readily carbonizable substances." Colors produced by action of sulfuric acid on 48 official organic chemicals in Lovibond units and matches prepared from Arny's "CO-FE-CU" standardized colored fluids will be reported and demonstrated.

Prior work by Arny and by Taub on matching color of official fixed oils will be reviewed with particular reference to inclusion of these color comparisons in U. S. P. XI.

Cod Liver Oil—Color and Viscosity

George E. E'we.

Origin of color of cod liver oil is discussed and influences of various factors upon color and viscosity of this oil are recorded and discussed.

Gravimetric and Volumetric Determination of Brucine and Strychnine as Dichromate

I. M. Kolthoff.

Brucine salts yield a precipitate with potassium dichromate which, after drying over deliquescent sodium bromide, has composition $(C_{23}H_{26}N_2O_4)_2.H_2Cr_2O_7.5H_2O$. Strychnine dichromate prepared under same conditions has composition $(C_{21}H_{22}N_2O_2)_2.H_2C_{22}O_7.H_2O$.

Gravimetric and volumetric procedures are described for quantitative determination of brucine and strychnine as dichromates.

Tincture of Stramonium Seed free From "Plant Dirt"

Ralph Clark and Edward Kremers.

Though richer in alkaloidal content than the leaf, stramonium seed has been replaced almost entirely by the leaf in galenicals. This has been due, in large part, to high percentage of fatty oil in seed. True, seed can be deprived of its fatty oil content before percolation with alcoholic menstruum, but even if this precaution be taken, finished preparation will be highly colored because of dark pigment in seed coat. No doubt, there are other disturbing factors. Much, if not all of this "plant dirt," as Lloyd calls it, can be eliminated by mixing ground seed with freshly slaked lime before extracting it with alcohol in percolator. Pigment is altered so as to be rendered insoluble. What other changes take place has not yet been ascertained. For this first experiment a defatted seed has been employed.

Standardization of Ergot

Asa N. Stevens.

A colorimetric assay for Liquid Extract of Ergot is officially recognized by British Pharmacopoeia of 1932. This method is compared with Modified* Smith Colorimetric Assay. Assay results of some twenty or more samples are given. In some cases corresponding results obtained by Broom and Clark method and by Cock's Comb method have also been tabulated.

From results some changes are suggested in previously reported Modified* Colorimetric Assay.

*Jour. A. Ph. A. Vol. XXII, No. 2, Feb. 1933, Page 99.

Aconite Alkaloids

James C. Munch, Harry J. Pratt, Walter H. Hartung and Frank C. Crossley.

Behavior of aconitine, benzoil aconine and aconine has been determined with a number of common alkaloidal reagents, used in this series of reports as well as with series of special reagents. Conflicting data in literature have led to great confusion and it is hoped that this report will clear up much of present uncertainty.

Standardization of Digitalis

A. John Schwarz.

A complete review of all methods, both chemical and biological, employed in standardization of leaves of *Digitalis purpurea* L.

Standards for Tincture Digitalis

L. W. Rowe.

Numerous comparisons have been made between U. S. and British and Canadian Standards for Tincture Digitalis by official methods. Average of results indicate that British and Canadian standards are about equivalent just as they are supposed to be and that both are about 20% more active than U. S. P. X. standard.

Determination of Strychnine and Brucine as Hydroferrocyanides

I. M. Kolthoff.

Sensitivity of precipitation of strychnine and brucine in hydrochloric acid medium with hydroferrocyanide has been determined.

Strychnine can be determined with great accuracy by precipitation as hydroferrocyanide. Precipitate is weighed in air in dry form. Method yields quantitative results even at great dilution. Determination of brucine is less accurate owing to greater solubility of its hydroferrocyanide.

Simple method is described for quantitative determination of strychnine in presence of brucine. It is based on fact that hydroferrocyanide of strychinne is less soluble and is formed more rapidly than that of brucine.

Unusual Peppermint Oil

Sister M. Francis Xavier and Edward Kremers.

Some years ago the writer was requested by National Research Council to compile physical and chemical constants so-called for International Critical Tables. Inasmuch as officers of the Council requested him to effect compilation in a manner which he regarded as utterly unscientific, he had to decline to undertake the task. In order to make clear his position the writer requested Herbert Braun to prepare a monograph on peppermint oil under general caption "A Century of the U. S. P. 1820-1920." This was revised by Sister Francis and is being published as a University bulletin. While revising this monograph, a peppermint oil distilled from plants raised in Pharmaceutical Garden came under our observation which defied even all pharmacopoeial standards in some respects. It emphasized strongly the foolhardiness to propose arbitrary standards of volatile oils for international use when it is well nigh impossible to suggest standards for a single country that will be acceptable universally.

Bioassay of Picrotoxin and Cocculus Indicus Preparations

James C. Munch and Amelia M. Ponce.

Search of literature failed to disclose satisfactory chemical methods for assay of these products. Qualitative chemical tests have been studied. Satisfactory method of physiological assay has been developed by determination of toxicity to mice.

Toxicology of Barbituric Acid Compounds

Amelia M. Ponce and James C. Munch.

Information has been collected from literature and also experimental data determined upon toxicity of number of barbituric acid compounds. A preliminary attempt has been made to connect chemical composition with narcotic and toxic activity of these products.

Picrotoxin—Barbituric Acid Antagonism

Amelia M. Ponce and James C. Munch.

Physiological antagonism of picrotoxin and barbituric acid compounds has been investigated on quantitative basis. Degree of physiological protection has been determined.

New Factor in Pituitary Assays

Amelia M. Ponce and James C. Munch.

Previous assays have considered intensity but not durational factor, in testing action of pituitary extracts on isolated guinea pig uterus. In connection with an intensive study of Broome-Clark ergot

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assay, idea occurred to apply same methods of interpretation to pituitary assays. Slight modifications in U. S. P. technic have been made. By considering duration as well as intensity factors more accurate results are believed to be obtained in bioassay of pituitary extract.

Quinine Alkaloids Antagonisms and Potentiations

James C. Munch and Harry J. Pratt.

Continuing previously reported work further evidences of antagonisms and protection have been observed, as well as potentiation, in administering mixtures of strychnine or brucine with quinine, quinidine, cinchonine or cinchonidine, to various species of animals and by various methods of administration.

Quantitative Applications of Modified Turck Test

James C. Munch and Harry J. Pratt and Amelia M. Ponce.

Series of investigations have been made to develop technic making Turck test quantitative. While there is a large personal factor in method it is believed that, with suitable controls and adequate training, quantitative results may be obtained. Advantages of method are presented and results obtained in studying series of local anesthetics, analgesics and sedatives reported.

Organoleptic Bioassays

James C. Munch, George E. Byers, Harry J. Pratt.

U. S. P. X. method for bioassay of capsicum was previously studied by Munch and recommendations made for an improved technic for U. S. P. XI. Tests conducted upon number of students have shown practicability and accuracy of modified method.

Same technic has been employed in developing bioassay for ginger and its preparations.

Proposed standards are given.

Mydriatic Activity of Lactucaria

James C. Munch, Harry J. Pratt and George E. Byers.

Number of samples of Lactucaria have been tested for their effect on pupillary diameter by Munch method during last few years. No evidence of mydriatic activity has been found. This is contradictory to rather meagre reports of chemical assays of this product.

Broome Clark Method for Bioassay of Ergot

Amelia M. Ponce and James C. Munch.

Critical study has been made of various factors effecting Broome-Clarke method for assay of ergot preparations. Modification has been developed which is more rapid, less capricious and which obviates many previous criticisms of this method.

Preparations and Bacteriological Study of Certain Thiazole Azo Dyes

W. A. Lott and W. G. Christiansen.

Several azo dyes have been prepared by diazotizing amino thiazole and coupling with phenols. These dyes are bacteriostatic but are comparatively weak germicides.

Di-Beta-Bromallylamino Ethyl P-Amino Benzoate

W. Braker and W. G. Christiansen.

Preparation of di-beta bromallyl amino ethyl para amino benzoate is described. Aqueous solutions of its hydrochloride are too acid to be suitable for use as an anesthetic.

New Series of Urethanes

W. A. Lott and W. G. Christiansen.

2-methyl cinnamyl urethane and 2-amyl cinnamyl urethane have been prepared and found to be inactive as hypnotics. Preparation and chemical porperties are reported.

Volatile Oil of Hyptis Mutabilis (Summary)

Harold W. Werner.

Hyptis mutabilis is proper name for plant generally recognized as *H. spicata.*

Specimens of oil have been prepared from reddish stemmed and from green stemmed material of above species. Physical and chemical constants of these oils are almost identical; however, yield of oil was greater from green stemmed material.

Results on fractionation of oil of *H. mutabilis* have been obtained and presence of certain hydrocarbons is indicated.

Oxidation and Antioxidants

A. Lee Caldwell and Francis E. Bibbins.

Short historical background is given relating to oxidation and antioxidants. Present views as to inhibitor action are mentioned. Methods of determining progress and effects of oxidation are discussed. Experiments are written up, in which cod liver and olive oils were used as basic substances for determination of antioxidative action of various chemicals.

Pancreatin and Its Assay

F. E. Willson.

Comparison of present U. S. P. and B. P. methods for the assay of Pancreatin is made. Attention is drawn to difficulties experienced in carrying out assays according to directions.

A modified Smith-Sorensen test for assay of proteolytic power (previously suggested) is discussed together with certain improvements that have been made in its manipulation. This method appears preferable to present U. S. P. method and seems worthy of consideration by Revision Committee.

Certain improvements are suggested for increasing accuracy of present U. S. P. method for determination of Starch digesting activity.

Absorption of Vitamin D from Skin

Florin J. Amrhein.

In this investigation the author has shown that Vitamin D may be absorbed by skin in appreciable amounts from oils and cosmetic cream bases that contain vitamin. The white Albino rat was used as test animal. During investigation method was developed for application of material containing the vitamin that is known as the Rat Tail method. This method keeps animal in constant contact with antirachitic material and at same time animal cannot eat vitamin D containing material. It is significant to note that rachitic animals showed good repair and in same cases complete healing within an eight day test period. Also, that vitamin may be absorbed from animal or vegetable fats or oils and from mineral oil base creams as well.

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Nephrotoxic Action of Thallium Compounds

H. J. Spencer, James C. Munch, J. C. Ward and F. E. Garlough.

Various kidney function tests were made on laboratory animals (principally rabbits and dogs). Effects of administration of thallium by various routes were followed. In addition, pathological examinations have been made on animal kidneys as well as on the kidneys of humans dying following the consumption of "thalgrain." Nature of pathological lesions has been determined.

Antipyrine in Presence of Amidopyrin

I. M. Kolthoff.

In acid medium antipyrine gives crystalline precipitate with ferrocyanide having composition $(C_{11}H_{12}N_2O_2)H_4Fe(CN)_6$. By means of this precipitation recation 2.5 mg. antipyrine can be detected in 5cc. of solution. A gravimetric and volumetric procedure has been described for quantitative estimation of antipyrine in the form of its hydroferrocyanide Method can be applied in the presence of pyramidone.

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Bismuth Subgallate
Bismuth Subnitrate
and other Bismuth Salts
Brucine Alkaloid
Brucine Sulphate
All Salts of Cinchona Alkaloids
Codeine Alkaloid
Codeine Phosphate
Codeine Sulphate
Iodine Resublimed
Iodoform
Menthol-Y
Morphine Alkaloid
Morphine Sulphate
Opium Gum (*Gran. and Powd.*)
Potassium Iodide (*Cryst.-Gran. and Powd.*)
Quinine Sulphate
and other Quinine Salts
Strychnine Alkaloid
Strychnine Sulphate
Thymol Iodide

Specify N. Y. Q. on your orders

THE NEW YORK QUININE & CHEMICAL WORKS INC.

GENERAL OFFICES
99-117 North Eleventh Street, New York, Borough of Brooklyn

NYQ

ST. LOUIS DEPOT. 403 NORTH FIRST ST., ST. LOUIS. MO.

NYQ

Prices Current

Medicinal, Aromatic, and Phorographic Chemicals, Crude Drugs, Spices, Essential Oils and Concentrates, Miscellaneous Raw Materials, etc.

Chemical prices quoted are of American manufacturers, spot New York, f. o. b. for immediate shipment, unless otherwise specified.

Products sold f. o. b. works are so specified. Imported chemicals are so designated. Resale stocks, when a market factor, are indicated "second hand."

Crude Drugs and Essential Oils are quoted f. o. b. New York (Manhattan with limitations) for immediate shipment

The range of price given is not "bid and asked," but are prices of different sellers, based on varying grades and/or quantities. Containers named are original packages most commonly sold.

Chemicals

Acetanilid
Iodide

Acetanilid, USP, 200 lb bbls..lb	.26	.27
Acetone, pure 350 lb drs wks..	.10½	.11½
Acetphenetidin, 225 lb bbls..lb.	1.30	1.35
ACID, Acetylsalicylic, 225 lb bbls.	.70	.75
Agaric, 1 oz vials.....oz	...	3.50
Arsenous, USP, 220 lb bbls lb.	...	.18
Benzoic, USP, 100 lb bbls.lb.	.55	.60
Boric, 300 lb bbls.....lb.	.07	.08
Cacodylic, 5 lb. bot...lb.	...	8.00
Camphoric, USP, VIII 1 lb bot.....lb.	5.25	5.40
Carbolic, USP, crys 112 lb tins.....lb.	.17	.18
Cinnamic, 5 lb cans.....lb.	2.85	3.25
Citric, USP, crys 230 lb bbl lb	...	.29
USP, crys imp. 112 lb keg ...lb.	.34	.36
USP, powd 200 lb bbl...lb.	...	.31½
Gallic, USP, 150 lb bbls..lb.	...	.74
Glycerophosphoric, 25% 1 lb bot.....lb.	1.40	1.75
Hydriodic, USP, 10% 5 lb bot.....lb.	...	.59
Hydrobromic, USP, 40% 155 lb. cbys.....lb.	...	.55
Hypophosphorous, USP, 30% .....lb.		
5 gal demis.....lb.	...	.75
Lactic, USP, VIII 100 lb cbys lb.	.53	.55
USP, X 100 lb cbys.....lb.	.55	.57
Phosphoric, USP, Syr 70 lb drs.....lb.	.14	.15
Pyrogallic, crys 5 lb cans..lb.	1.30	1.40
Resublimed, 5 lb cans...lb.	1.60	1.70
Salicylic, USP, 100 lb bbls.lb.	.40	45
Stearic, double pressed, bags .....lb.	.09¾	.10¼
Triple pressed, bags,....lb.	.11¾	.13
Succinic, 100 lb bbls.....lb.	...	1.35
Sulfurous, USP, 6% 100 lb cbys.....lb.	.05	.06
Tannic, USP, fluffy 50 lb bbls. .....lb.	.83	.86
Powd 200 lb bbls.....lb.	.70	.75
Tartaric, USP, 300 lb bbls.lb	.25	.25½
Aconitine, Alk, crys 1 oz vials .....oz.	...	29.00
Amorphous, 1 oz vials....oz.	...	17.00
Agaricin, 1 oz vis incl.....oz.	...	2.32
ALCOHOL, Benzyl, 5 lb bot lb.	1.20	1.35
F. O. B. Works.....		
Ethyl, USP, 190 pf 54 gal drs.....gal.	...	2.535
Grain U. S. P. bbls....gal.	...	2.635
Pure tax free drums...gal.		
Ethyl.....	...	.445
Grain.....	...	.545
Denatured, (drums included) add 5c for bbls.		
No. 1 spec.....gal.	.335	.415
No. 5 comp.....gal.	.34	.42
23 a, spec.....gal.	.37	.49
39 b, spec.....gal.	.38	.50
40 m, spec.....gal.	.34	.46
Isopropyl refd 98-99% drs. incl.....gal.	.55	.60
Phenylethyl, 1 lb bot.....lb.	4.30	4.50
Aloin, USP, 100 lb cases....lb.	.85	.89
Aluminum Acetotartrate kegs .....lb.	...	1.60
Amidipyrine, 10 lb boxes....lb.	4.00	4.10
AMMONIUM, Acetate 100 lb kegs.....lb.	.26	.33
Benzoate, USP, 1 lb bot...lb.	...	1.27
Borate, 10 lb bot.....lb.	...	.35
Bromide, USP, 450 lb bbls.lb.	.39	.40
Carb, USP, lump 150 lb kegs .....lb.	...	.11
USP, powd 150 lb kegs..lb.	...	.12
Citrate, 100 lb kegs.....lb.	.90	1.30
Ichthyolate, as to brand..lb.	4.00	4.50
Iodide, USP, 25 lb jars...lb.	...	3.60
Phosphate, dibasic 250 lb bbls .....lb.	.48	.50
Salicylate, USP, 100 lb kegs .....lb.	1.15	1.20
Valerate, USP, 25 lb jars...lb.	2.75	2.90
Amylene Hydrate, 1 lb bot..lb.	...	7.10
Antipyrine, USP, 100 lb cans.lb.	2.00	2.50
Apomorphine Hydrochloride, ¼ oz. vials.....oz.	24.60	22.70
Arecoline Hydrobrom, 1 oz vials .....oz.	5.50	5.75
Aspidospermine Amorphous.oz.	...	15.00
Atropine Alk, USP, 1 oz. vials oz.	5.25	5.50
Methyl bromide, 1 oz vials.oz.	...	25.00
Sulfate, 5 oz cans.....oz.	...	2.50
Single ounce.....oz.	...	3.00
Barbital, 1 lb. bot.....lb.	3.50	3.60
Barium Iodide, 5 lb box.....lb.	...	4.35
Sulfate. X-ray diagn bbls..lb.	.09½	.10
BAY RUM Porto Rico, 45 gal. bbls.....gal.	.75	.80
Domestic syn. 50 gal bbl..gal.	.70	.75
St. Thomas, 50 gal bbls...gal.	.80	.90
Benzocaine 25 lb. lots.....		
1 lb.l ots.....lb.	5.00	5.75
Benzonaphthol, 5 lb boxes...lb.	2.50	2.60
Benzoyl Cholride, 500 lb dr..lb.	1.00	1.05
Benzyl Benzoate, Medicinal FFC.....lb.	1.20	1.40
Chloride Redis, 160 lb cby.lb.	.30	.35
Formate, 1 lb bot.....lb.	3.25	3.50
Succinate, 160 lb cby.....lb.	...	5.25
BISMUTH, metal 100 lb cases .....lb.	...	1.40
Ammon. Citrate, USP, 5 lb cans.....lb.	...	3.40
Betanaphtholate, 5 lb box.lb.	...	3.14
Citrate, USP, 5 lb cans....lb.	...	2.77
Chloride.....lb.	...	2.85
Hydroxide.....lb.	...	3.27
Nitrate, 25 lb jars.....lb	...	1.20
Oxide anhydrous.....lb.	...	3.45
Oxychloride, 25 lb boxes...lb.	...	2.95
Salicylate, 25 lb boxes.....lb.	...	1.85
Subcarbonate, USP, 25 lb boxes.....lb.	1.65	1.78
Subcarbonate, X-ray diag 1 lb. bot.....lb.	2.79	1.86
Subgallate, USP, 25 lb boxes .....lb.	1.65	1.78
Subiodide, 5 lb lots.....lb.	...	4.20
Subnitrate, USP, 25 lb jar.lb.	1.40	1.53
Subsalicylate, USP, 25 lb boxes.....lb.	2.45	2.50
Tannate.....lb.	...	2.32
Borax, crys USP, 400 lb bbls.lb.	...	.04½
Bromoform, USP, 5 lb bot cases .....lb.	1.75	1.90
Butylchloral Hydrate bot...lb.	4.00	5.00
Cadmium iodide, 10 lb bot...lb.	...	3.65
CAFFEINE Alk, USP, 1.....		
100 lb kegs.....lb.	2.20	2.30
Citrated, 50 lb cans.....lb.	1.80	1.85
Hydrobromide, 1 lb bot...lb.	4.80	5.00
Hydrochloride, 1 lb bot...lb.	6.05	6.55
Sulfate, 1 lb bot.....lb.	5.40	5.90
Sodium Benzoate, tins....lb.	...	3.05
Salicylate, tins.....lb.	...	2.95
Calcium Bromide, 100 lb cs..lb.	...	.60
Carb, USP, 175 lb bbls....lb.	.05	.06
Gluconate, Gran. 125 lb.....		
bbls.....lb.	.47	.52
Powd.....lb.	.47	.52
Glycerophos, 250 lb bbls...lb.	...	1.05
Hypophos, USP, 25 lb cans lb.	.55	.60
Iodide, 5 lb bot.....lb.	...	3.60
Lactate, USP, 500 lb bbls lb.	.35	.40
Lactophosphate Soluble...lb.	...	1.20
Powdered tins.....lb.	...	1.00
Insol, powd tins.....lb.	...	.50
Phosphate & Sulfate Tooth Paste grade, Works..lbs.	.03	.06
Sulfide, USP, 100 lb drs...lb.	.21½	.24
CAMPHOR, Jap. ref. slabs 100 lb. cases.....lb.	.55	.56
Refined powd.....lb.	.55	.56
½ oz tab, 100 lb cases....lb.	.60	.61
Liniment, bbls.....gal.	2.10	2.20
Monobrom, 100 lb cases...lb.	1.60	1.65
Casein edible, 100 lb kegs...lb.	.45	.55
Charcoal Animal medicinal jars incl.....lb.	...	.50
Charcoal Wood, powd, 100 lb. bbls.....lb.	.06	.07
Chloral Hydrate, USP, 25 lb jars.....lb.	...	.90
100 lb drums.....lb.	...	.85
Cholesterin.....lb.	11.00	17.00
Chloroform, USP, 50 lb drs...lb.	.32	.35
Chlorophyll, 1 lb bot.....lb.	3.75	4.00
Chromium Sulfate Scales, tins .....lb.	.45	.50
Powdered tins.....lb.	.50	.55
Chrysarobin, 50 lb tins.....lb.	3.50	3.55
Cinchonine Alk, 100 oz tins.oz.		
Crystal.....oz.	.46	.54
Sulfate, 100 oz tins.....oz.	.30	.32
Cinchonidine Sulfate, 100 oz tins .....oz.	.45	.47
Cinchophen, U.S.P. kegs...lb.	2.75	3.25
Cocaine Alk, USP, 1 oz vial..oz.	...	12.57
Hydrochloride, USP,.....oz.	9.75	10.00
CODEINE Alk, 1 oz vials, 10 lots.....oz.	...	11.87
Hydrobromide.....oz.	...	8.92
Hydrochloride.....oz.	...	10.67
Nitrate, oz vl 10 oz lots....oz.	...	9.80
Phosp. oz vl, 10 oz lots....oz.	...	9.17
Salicylate.....oz.	...	8.25
Sulfate, oz vl, 10 oz lots...oz.	...	10.57
Colchicine Alk, USP, 1 oz vl.oz.	...	22.00
Salicylate, 1 oz vls.....oz.	...	35.50
Cream Tartar, USP, 300 lb bbls .....lb.	.17¾	.18¼
Imp. powd. 224 lb bbls....lb.	.17¾	.18¼
Creosote, USP, 42 lb cbys....lb.	.45	47
Carbonate, 150 lb.....lb.	1.40	1.75
Cresol, USP, 400 lb drums...lb.	...	.18
500 lb drums.....lb.	.12	.15
DIGITALIN Pure, 1 oz vial. oz	15.00	15.50
Dover's Powder, USP, 5 lb tin .....lb.	2.75	2.80
Duboisine Sulfate, 1 oz vl....oz.	35.00	40.00
Emetine Alk, 15 gr vial.....oz.	...	.85
Hydrochloride, USP, 1 oz vl .....oz.	13.00	13.25
15 grain vials.....oz.	2.50	2.70
Ephedrine, alk. 25 oz. tins,...oz.	1.50	1.90
Hydrochloride, 25 oz. tins, oz.	1.30	1.65
Sulfate, 25 oz. tins.....oz.	1.30	1.65
Epsom Salts, USP, 200 lb bbls .....100 lb.	2.25	2.50
Imp. 100 lb bbls.....100 lb.	2.30	2.35
Ergotin Bonjean, 1 lb jars...lb.	18.50	19.00
Eserine Alk, 1 oz vials.....oz	...	50.00
Salicylate, 1 oz vials.....oz.	...	40.00
Sulfate, USP, VIII 1 oz vials .....oz.	...	40.00
ETHER, USP, 55 lb drums..lb.	...	.12
Anaesthesia, 55 lb drums..lb.	...	.24
Nitrous, 1 lb bot.....lb.	.75	.77
Ethyl Chloride, 200 lb bot...lb.	.22	.24
Ethyl Iodide, 5 lb bot.....lb.	6.00	6.05
Formaldehyde, USP, 100 lb cbys lc-l wks.....lb.	.07	.07½
Gall Extract.....lb.	.20	.21
GLANDULAR SUBSTANCES 1 lb. lots		
Duodenal Substance.....	...	3.75
Liver Extract 1-20	...	5.75
Orchic Substance (Testicular)	...	3.75
Ovarian Substance, whole..	...	12.50
Ovarian Residue.....	...	10.00
Pituitary Substance, whole..	...	38.50
Pituitary Substance, Anterior Lobe.....	...	36.50
Thyroid, U.S.P.....	...	3.75
Oxgall Powder.....	...	1.25
GLYCERIN, CP, 550 lb drums .....lb.	...	.11
Gold Chloride, bottles.....oz.	19.25	20.25
Guaiacol, liq. USP. 100 lb cbys.....lb	1.60	1.70
Crystals.....lb	2.25	2.50
Benzoate, 1 lb bottles....lb.	...	3.00
Carbonate, 5 lb boxes.....lb.	1.75	1.80
Halazone, 5 lb bot.....lb.	2.75	3.25
Hexamethylenetetramine, USP, 100 lb dr.....lb.	.46	.47
Homatropine Hydrobrom USP. .....oz.	...	14.50
5 oz and 1 oz vials.....oz.	...	13.50
Hydrastine Alk, USP, 1 oz vial .....oz.	20.50	21.00
Hydrochlide, USP, 1 oz vials .....oz.	20.50	21.00
Sulfate, 1 oz vial.....oz.	22.50	23.00
Hydrastinine Hydrochloride, USP, 15 gr vials.....oz.		
Hydrogen Peroxide, USP, 350 lb bbls.....lb.	...	.03
Hyoscine Hydrobrom, USP, 1 oz vials.....oz.	.03¼	.04¼
5 oz, 1 oz vials.....oz.	13.07	13.57
Hyoscyamine Alk, crystals, 1 oz vials.....oz.	...	25.07
Amorphous, 1 oz vial...oz.	...	75.07
Hydrobromide, USP 1 oz vial .....oz.	...	25.00
Sulfate, 1 oz vial.....oz.	...	25.07
Hypoquinone, 100 lb kegs...lb.	...	1.10
ICHTHYOL, tins.....lb.	4.00	4.25
Iodide Arsenous, 5 lb bot...lb.	...	5.20

Arsenous-Mercuric soln, 5 lb bot	lb	.26
Iodine, crude, 200 lb kegs	lb.	15s 1d per kilo
Resublimed, 25 lb jars	lb.	2.40
Tincture bbls	gal.	3.00
Iodoform, powd 10 lb bot	lb.	5.30
Iron & Ammonium Citrate, USP, 50 lb cans	lb.	.57 .58
Chloride, USP, lump 400 lb bbls	lb.	.06 .08
Citrate, USP, VIII 25 lb can	lb.	.94 .99
Hypophosphite, 5 lb cans	lb.	1.40 1.50
Iodide, 1 lb bottles	lb.	3.00
Phosphate, USP, 50 lb cans	lb.	.69
& Potas Oxalate, 250 lb bbl	lb.	.45
Pyrophosphate, USP, 50 lb	lb.	.74 .80
& Sod Oxalate, 50 lb. cans	lb.	.30½
Sulfate, USP, crys bbls	lb.	.04 .04½
Ferrous dried bbls	lb.	.08
Valerate, tins	lb.	2.75 3.00
Jalap Resin, USP lumps, 5 lb tins	lb.	4.00
Powdered, tins	lb.	4.65
Lanolin, hyd 350 lb. bbls	lb.	.13 .15
Anhydrous, 350 lb. bbls	lb.	.14 .16
Lead Acetate, USP, 100 lb kegs	lb.	.16½ .19½
Iodide, USP, VIII 5 lb bot	lb.	2.55
Lecithin, 5 oz. jars	oz.	1.00 1.30
Vegetable, cans	lb	1.00 2.50
Licorice Ext Mass, cases	lb.	.19 .20
Compound powder, bbls	lb.	.11 .13
LITHIUM CARBONATE, 250 lb bbls	lb.	1.25 1.35
Citrate, USP, 100 lb kegs	lb.	1.40
Iodide, 5 lb bottles	lb.	4.60
Lobeline Sulfate, ¼ oz vial	oz.	8.75
Magnesium Carbonate, USP, 100 lb bbls	lb.	.08 .09
English, oz blocks	oz.	.16 .18
Glycerophosphate, 5 lb tins	lb.	3.20 3.25
Hypophosphite, 5 lb cans	lb.	1.10 1.15
Oxide, 100 lb. cases	lb	.35 .45
Salicylate, 100 lb kegs	lb	1.10
Stearate, bbls	lb.	.18 .20
Manganese Glycerophosphate, 5 lb tins	lb.	2.90 3.00
Hypophosphite, USP, VIII 5 lb cans	lb.	1.35 1.40
Iodide, 1 lb bottles	lb.	5.35
MENTHOL, USP, 60 lb cases	lb.	2.50 2.70
Synthetic, cases	lb.	2.25 2.65
Mercury Metal, 75 lb flasks	fl.	68.00 69.50
Bichloride, crys 25 lb box	lb.	.97
Gran powd, 100 lb kegs	lb.	.82
Bisulfate, 25 lb boxes	lb.	1.48
Blue Mass, 25 lb boxes	lb.	.84
Powd, 25 lb boxes	lb.	.85
Blue Ointment, USP, 50%, 25 lb cans	lb.	.99
Mild 30%, 25 lb cans	lb.	.69
33 1/3% mercury	lb.	.72
Calomel, 50 lb boxes	lb.	1.23
English	lb.	2.65 2.75
Iodide, green, 25 lb jars	lb.	3.95
Red, USP, 25 lb jars	lb.	3.60
Yellow, USP, VIII, 25 lb jars	lb.	3.70
Red precip.Powd.USP, 25 lb. boxes	lb.	1.34
White precip. Powd., USP, 25 lb. boxes	lb.	1.41
Salicylate, 25 lb bot	lb.	2.32
With chalk, USP, 25 lb boxes	lb.	.69
Methanol, Pure 1c-l drs	gal	.41½
Methyl Salicylate, USP, 50 lb cans	lb.	.40 .42
Methylene Blue, USP, med 5 lb cans	lb	2.00 2.05
Milk powd, 150 lb bbls	lb.	.09 .12
MORPHINE Alk, 5 oz tin	oz.	11.15 11.20
Acetate, 5 oz tins	oz.	8.80 8.85
Hydrobromide, 5 oz tins, 10 oz lots	oz.	8.75 8.80
Hydrochloride, 5 oz tins, 10 oz lots	oz.	8.85 9.10
Ethyl Hydrochloride, 5 oz tins 10 oz lots	oz.	10.60 10.82
Sulfate, 5 oz tins, 10 oz lots	oz.	8.75 8.80
Naphthalene Flake, 175 lb bbls wks	lb.	.04½ .05
Balls, 250 lb bbls wks	lb.	.05½ .06
Neo-cinchophen 5 lb. lots	lb.	15.00 18.00
Oxgall, Purified, 5 lb bot	lb.	2.00 2.50
USP Extract, 5 lb. bot	lb.	1.80 1.90
Oxyquinoline Sulfate, tins	lb.	5.00 5.75
Pancreatin, USP, 100 lb	lb.	1.90
Para-Aldehyde, USP, 100 lb. carboys	lb.	.48 .50
Pepsin, USP, 100 lbs. 1:3000	lb.	2.25
100 lbs. 1:6000	lb.	4.00
100 lbs. 1:10000	lb.	6.50
Peptone, powd., or granular 1 lb lots	lb.	1.25
PHENOBARBITAL, U. S. P., 100 lb. lots	lb	5.50
Phenolphthalein, U. S. P. 100 lb drums	lb.	.52
5 lb cans 100 lb lots	lb.	.60
Yellow		.47
Pilocarpine Hydrochloride, USP, 1 oz vials 25 oz lots	oz.	2.00 2.25
Nitrate, 25 oz lots	oz.	1.90 2.15
Single ounce	oz.	2.15 2.40
Alkaloid, 15 gr vials	vl.	.75
Piperadine, 25 oz bottles	lb.	8.00
Popodhyllin 5 lb bottles	lb.	4.00 4.15
Potassium Acetate, USP, 100 lb kegs	lb.	.29 .30
Bicarb, USP, crys 320 lb bbls	lb.	.09½ .10
Bromide, USP, crys 100 lb cs	lb.	.36 .37
Citrate, USP, 100 lb box	lb.	.42½ .43
Guaiacol Sulfonate	lb.	1.95 2.25
Potassium Hypophosphite, 10 lb. cans	lb.	.65 .70
Iodide, USP, 25 lb cases	lb.	2.15
Lactophosphate, 4 ox bot	lb.	.90
Permangan, USP, crys, 100 lb drs wks	lb.	.16 .16½
Phosphate dibasic pure, kegs	lb.	.49
Salicylate, 25 lb cans	lb.	1.18
Sulfate, USP, VIII, 100 lb kegs	lb.	.13 .15
Sulfocyanide, CP 15 lb jars	lb.	.50
Tartrate, CP, tins	lb.	.65
Pyrogallol, USP, see Acid Pyrogallic		
Quinidine Alk, crystals, 100 oz. tins	oz.	.96 1.02
Sulfate, 100 oz tins	oz.	.67
QUININE SULFATE. USP, 100 oz tins	oz.	.51
1 oz tins. 100 oz lots	oz.	.61
Acetate	oz.	1.08
Arsenate	oz.	1.08
Bisulfate, USP	oz.	.61
Citrate	oz.	.81
Dihydrobromide	oz.	.84
Dihydrochloride, USP	oz.	.84
Ethyl Carbonate	oz.	.79
Ferrocyanide	oz.	1.11
Formate	oz.	1.03
Glycerophosphate	oz.	1.23
Hydrobromide, USP	oz.	.77
Hydrochlorosulfate	oz.	.84
Hypophosphite	oz.	1.01
Phosphate	oz.	.92
Salicylate, USP	oz.	.82
Tannate, USP	oz.	.62
Tartrate	oz.	1.06
Valerate	oz.	.92
Urea Hydrochloride, USP	oz.	.84
Rennet, N. F. 1 lb 1:25,000	lb.	3.75
Resorcinol, USP, 25 lb cans	lb.	1.57 1.65
Rochelle Salt, USP, 225 lb bbl	lb.	.12½ .13
Rock Sugar, 5 lb boxes	lb.	.15
Saccharin, USP, 10 lb cans	lb.	1.70 1.80
USP, Soluble, 10 lb cans	lb.	1.75 1.85
Salicin, USP	lb.	7.00 7.25
SALOL, USP, 100 lb drums	lb.	.90
Saltpetre, powd, bbls wks	lb.	.06½ .08½
Santonin, USP, bulk	lb.	60.00 65.00
Saponin, refined	lb.	1.30 1.50
Seidlitz Mixture, 250 lb bb	lb.	.10½ .11½
Silver Metal, American	oz.	.29½
Iodide, 16 oz lots	oz.	.69
Nitrate, 100 oz bottles	oz.	.31¾ .32¾
Nucleinate, bulk	oz.	.37
Proteinate	oz.	.39 .41
SODIUM BENZOATE, USP, 100 lb bbls	lb.	.47 .52
Bromide, USP, 100 lb kegs	lb.	.36 .37
Cacodylate, USP, 25 lb bot	lb.	6.00 6.25
Citrate, USP, X100 lb. box	lb.	.31½
USP VIII, 100 lb. box	lb.	.25
Glycerophosphate, N.F., crys 25 lb cans	lb.	1.27 1.33
Powder, 25 lb tins	lb.	1.32 1.38
Soln, USP, 25 lb tins	lb.	1.05 1.15
Hypophosphite, USP, 25 lb cans	lb.	.60 .65
Iodide, USP, 25 lb jars	lb.	2.75
Phosphate (Mono-Sodium), 100 lb kegs	lb.	.28 .29
Di-Sodium USP, granular, 275 lb bbls	lb.	.07½ .08
Pyrophosphate, 100 lb kegs	lb.	.29
Salicylate, 100 lb kegs	lb.	.47
Sulfocarbolate, USP, 100 lb kegs	lb.	.25
Sulfocyanate, CP crys, jars included	lb.	.60
Spartein Sulfate, USP, 25 oz bulk	oz.	.65 .70
Single oz vial	oz.	.77 .90
STRONTIUM BROMIDE USP, 50 lb kegs	lb.	.52 .53
Carb, 100 lb kegs wks	lb.	.20
Iodide, USP, 25 lb jars	lb.	2.95
Lactate, kegs	lb.	.90 1.10
Nitrate, 600 lb bbls NY	lb.	.08 .08½
Imp. bbls NY	lb.	.08 .08½
Salicylate, USP, 100 lb keg	lb.	1.10
Strophanthin, USP, 1 oz vial	oz.	19.00 19.00
Crystals	lb.	75.00 75.00
Strychnine Alk, USP crys, 100 oz tins	oz.	.52
Powdered	oz.	.42
Acetate	oz.	.65
Arsenate, 25 oz cans	oz.	.65
Glycerophosphite, USP	oz.	.65
Hydrobromide	oz.	.65
Hydrochloride	oz.	.65
Hypophosphite	oz.	.75
Nitrate, USP	oz.	.60
Phosphate	oz.	.65
Sulfate, USP, powd	oz.	.36
Sugar, refined, 275 lb bbl 100 lb		5.80 5.90
Milk, USP, 200 lb bbls	lb.	.18 .20
Sulfonethylmethane, USP, 10 lb boxes	lb.	3.85 4.05
Sulonmethane, USP, 10 lb box	lb.	2.65 3.85
Sulfur flwrs. washed, USP, 125 lb bbl	lb.	.06
Iodide, USP, VIII, 5 lb bot	lb.	3.85
TARTAR EMETIC, USP, 300 lb bbls	lb.	.26 .28
Terebene, tins	lb.	.85
Terpin Hydrate, USP, 100 lb kegs	lb.	.43 .44
Theobromine Alk, 5 lb cans	lb.	2.45 2.55
Sod. Salicylate, 1 lb bot	lb.	2.62 2.67
Sod. Benzoate, 1 oz vials	oz.	1.00
Thymol, USP, 25 lb tins	lb.	1.70 1.75
Iodide kegs	lb.	3.85
Titanium Oxide, tons, bags, 100 lb. kegs	lb.	.18 .19½
Veratrine Alkaloid	oz.	2.25
Sulfate, 1 oz vials	oz.	2.25
Witch Hazel Ext., 50 gal bbl	gal.	.60 .80
Zinc Carb, USP, 100 lb keg	lb.	.28 .31
Chloride, USP, 25 jars ex	lb.	.24 .29
Iodide, 5 lb bottles	lb.	4.25
Oxide, USP, 100 lb bbls	lb.	.13 .14
Stearate, USP, 50 lb bbl	lb.	.18 .19
Sulfate, USP, 100 lb bbl	lb.	.08 .09
Sulfocarbolate, 100 lb kegs	lb.	.23 .26

Miscellaneous

Absorption Bases	lb.	.60 .75
Castor Oil, odorless, bbls	lb.	.12
Chalk drop, 175 lb. bbls	lb.	.03½
Precip. light, 250 lb. cask	lb.	.04½
Heavy 540 lb. casks	lb.	.04½
English light, bags	lb.	.04½
English light, casks	lb	.05½
Cocoa Butter, fingers 12 lb. box	lb.	.22 .24
Cod Liver Oil Nor. 30 gal. drs		29.00 32.00
Collodion U. S. P. 30 lb. dr	lb.	.13 .14
Colors certified; 1 lb. cans, 5 lb. cans		
Amaranth No. 107	lb.	2.80 2.90
Brilliant Blue F.C.F.	lb.	13.00 13.50
Erythrosine No. 517	lb.	17.00 17.50
Orange Ind. 85	lb.	2.55 2.65
Ponceau 3R No. 56	lb.	5.75 6.00
Tartrazine No. 94	lb.	2.80 2.90
Corn Syrup 42° 50 gal. bbl. 100 lb.		2.28
Gelatin, USP, Silver 100 lb. cases	lb.	.49 .55
Pure Food, 50 lb. bbl	lb.	.47 .49
Glucose, (grape sugar) dry 70° bags c-l NY 100 lb.		3.14 3.24
Haarlem Oil, bot 6 gross cases	gross	3.25
Imported, 5 gr. cs	gross	3.35
Kaolin, Bags	lb.	.05 .08
Colloidal Grade 200 lb. tin lined wooden drums	lb.	.10½ .12
Mineral Oil White, 50 gal. bbls. 80-90 vis	gal.	.56 .61
125-130 vis	gal.	.77½ .87½
320-330 vis	gal.	.87½ .97½
335-345 vis	gal.	.89 .99
Russian 80-85 vis	gal.	.70 .75
110-115 vis	gal.	.79 .84
145-155 vis	gal.	.83 .88
180-185 vis	gal.	.86 .91
335-345 vis	gal.	.93 .98
Olive Oil, Edible bbls	gal.	1.45 1.65
Paraffin Wax, fully refined, slabs		
125 @ 127 A.M.P. bags lb		.053
130 @ 132 A.M.P. bags lb		.0595
135 @ 137 A.M.P bags lb		.0655
Petrolatum, Lily White, USP. 400 lb. bbl	lb.	.08½ .09½
Snow White USP, 400 lb. bbls	lb.	.09½ .10½
Rice Starch, 140 lb bags	lb.	.09 .10
Soap Castile, bars 40 lb. Case	Cs.	12.75
Powd. USP 250 lb. bbls	lb.	.23 .25
Green, USP, 450 lb. bbls	lb.	.07½ .07½
Neutral, powd. 200 lb. bbls	lb.	.18½ .20½
Talc, Italian, 220 lb bags	ton.	60.00 75.00
French, 220 lb bags	ton.	45.00 50.00
Turtle Oil, gal		3.50 5.00

Waxes, See Drugs & Spices

Acetophenene, CP, 1 lb bot..lb.	3.50	3.65
Aldehyde, C 8 (Otcyl) 1 lb bot ..... lb.	30.00	35.00
C 7, 1 lb bot.....lb.	4.50	5.50
C 9 (Nonyl), 1 lb bot ....lb.	40.00	45.00
C 10 (Decyl), 1 lb bot....lb.	30.00	35.00
C 14, 1 lb bot.....lb.	8.50	14.00
C 16, 1 lb bot.....lb.	9.25	16.00
AMYL ACETATE, pure, 25 lb cans.....lb.	.43	.50
Butyrate, 1 lb bot.....lb.	.95	1.50
Butyrate, 5 lb bot.....lb.	...	1.00
Cinnamate, 5 lb bot.....lb.	9.50	9.75
Formate, 1 lb bot.....lb.	...	1.75
Formate, 5 lb bot.....lb.	...	1.60
Phenyl Acetate, 1 lb bot...lb.	4.50	5.00
Salicylate, 100 lb cbys.....lb.	.65	1.25
Anethol, 2 lb bot.....lb.	1.00	1.10
Anisic Aldehyde, 1 lb bot....lb.	3.10	3.60
Benzaldehyde, USP, 40 lb cbys .....lb.	1.30	1.40
FFC, 40 lb cbys.....lb.	1.35	1.45
Benzoic Ether, see Ethyl Benzoate.....		
Benzophenone, 1 lb bot.....lb.	1.75	2.25
Benzyl Acetate, 100 lb cbys..lb.	.60	.80
Alcohol, 5 lb bot.....lb.	.85	.95
BENZYL BENZOATE.....	1.10	1.15
Medicinal, FFC.....lb.	...	1.40
Buytrate, CP, 1 lb bot....lb.	9.25	9.50
Benzyl Cinnamate, 1 lb bot. lb.	7.40	7.60
Formate, 1 lb bot.....lb.	3.15	3.25
Propionate, 1 lb bot.....lb.	2.25	2.40
Succinate, 1 lb bot.....lb.	5.25	5.50
Valerate, 5 lb bot.....lb.	3.00	3.25
Borneol, 1 lb bot.....lb.	1.35	1.85
Bornyl Acetate, 1 lb bot....lb.	1.50	2.60
Bromstyrol, 25 lb cases.....lb.	4.00	4.25
Butyl Anthranilate dom, 1 lb bot.....lb.		
Carvol, 5 lb bot.....lb.	3.75	4.00
Cinnamic Acid, 5 lb cans....lb.	3.25	3.50
Alcohol 1 lb bot.....lb.	2.90	3.25
Crystallizable.....lb.	3.50	4.00
Aldehyde.....lb.	2.25	2.50
Imported, 1 lb bot.....lb.	7.75	9.00
Citral, 25 lb cans.....lb.	2.00	3.20
Citronellol 1 lb bot.....lb.	2.10	2.35
Citronelyl Acetate, 1 lb bot..lb.	3.50	3.75
Coumarin, 25 lb cans.....lb.	3.25	3.50
DECYL ALCOHOL.....lb.	22.00	25.00
Diphenyloxide, 25 lb tins....lb.	1.05	1.25
Diphenyl Methane.....lb.	1.75	2.00
Duodecyl Alcohol.....lb.	24.00	26.00
Ethyl Acetate, pure, 5 lb bot..lb.	.05½	.06½
Benzoate, 5 lb bot.....lb.	1.25	1.50
Ethyl Butyrate, 5 lb bot....lb.	1.80	2.00
Caproate, 1 lb bot.....lb.	3.25	3.50
Cinnamate, 1 lb bot.....lb.	4.00	4.50
Formate, 5 lb bot.....lb.	1.00	1.25
Methyl Paracresol, 1 lb bot .....lb.	3.25	3.50
Phenyl Acetate, 5 lb bot..lb.	3.75	4.00
Valerate, 5 lb bot.....lb.	...	3.75
Salicylate, 5 lb bot.....lb.	1.95	2.00
Eucalyptol, USP, 50 lb cans..lb.	.65	.70
Eugenol, USP, 25 lb cans....lb.	2.25	2.50
Geraniol, 50 lb cases.....lb.	1.75	2.35
Geranyl Acetate, 1 lb bot....lb.	2.75	2.80
Butyrate, 1 lb bot.....lb.	13.00	13.50
Formate, 1 lb bot.....lb.	12.00	12.50
Heliotropin, 100-10 lbs.....lb.	1.85	2.10
Imported.....lb.	2.25	2.40
Hydroxycitronellal, 1 lb.....lb.	2.90	3.85
Indol, CP, 1 oz bot.....oz.	2.90	3.00
IONONE, 1 lb bot 100%...lb.	4.00	4.50
Alpha.....lb.	7.25	7.40
Beta.....lb.	6.25	6.50
Methyl.....lb.	5.25	5.50
Iso Borneol.....lb.	2.25	2.35
Iso Bornyl Acetate.....lb.	3.00	3.20
Iso-Butyl Benzoate, 5 lb bot.lb.	3.75	4.00
Iso-Eugenol, 1 lb bot.....lb.	4.00	4.05
Iso-Safrol, 1 lb bot imp.....lb.	1.75	1.85
Domestic, 5 lb bot.....lb.	3.50	3.75
Linalol from Bois de Rose, 5 lb bot.....lb.	2.00	4.00
Linalyl Acetate, 1 lb bot....lb.	2.75	3.00
Benzoate, 1 lb bot.....lb.	13.00	14.00
Formate, 5 lb bot.....lb.	10.50	12.00
METHYL ACETOPHENONE .....lb.	2.00	2.15
Anthranilate, 1 lb bot.....lb.	2.15	2.25
Imported.....lb.	2.70	2.75
Benzoate, 5 lb bot imp.....lb.	1.25	1.35
Domestic, 5 lb bot.....lb.	1.25	1.35
Cinnamate, 1 lb bot.....lb.	3.35	4.00
Heptenone, 1 lb bot.....lb	3.50	4.00
Paracresol, 1 lb bot.....lb	4.50	8.00
Phenylacetate, 5 lb bot..lb	2.50	2.75
Salicylate, USP, 500 lb dr .lb.	...	.40
50 lb cases.....lb.	...	.42
Mirbane rect, 1,000 lb drs...lb.	.12	.13
Musk Ambrette 1 lb cans...lb	6.00	6.25
Musk Ketone 1 lb cans.....lb.	7.55	7.80
Xylene 5 lb cans.....lb.	2.25	2.85
Nerolin 1 lb cans.....lb.	1.35	1.40
Octyl Alcohol 1 lb bot.....lb.	18.00	20.00
Oenanthic Ether lb bot.....lb.	1.90	2.00
Oleoresin Aspidum..... USP, bot and tins.....lb.	...	1.25
Capsicum, USP, bot and tins .....lb.	2.15	2.30
Cubeb, USP, bot and tins..lb.	2.30	2.60
Ginger bot and tins.....lb.	2.00	2.50
Malefern see Aspidum.....		
Orris, bot & tins.....lb.	12.00	15.00
Pepper, black, USP, bot & tin.....lb.	...	9.50
Vanilla, bot & tins.....lb.	3.80	4.00
Paracresol Methyl Ether....lb.	4.25	4.50
Paracresyl Acetate.....lb.	5.50	5.75
Para Cymene Refd 110 gal dr .....gal.	2.25	2.50
PHENYLACETALDEHYDE 50% 1 lb bot.....lb.	4.50	4.75
Imported 50%.....lb.	4.50	4.75
100%.....lb.	8.00	8.25
Phenylacetic Acid 1 lb bot..lb.	2.65	2.90
Phenyl Diacetate 1 oz bot...oz.	3.00	3.25
1 lb bot.....lb.	8.00	10.00
Imported.....lb.	7.00	7.75
Phenylethyl Alcohol 1 lb bot.lb.	3.75	4.00
Phenyl Ethyl Acetate.....lb.	8.25	8.75
Butyrate 1 lb bot.....lb.	15.00	16.00
Formate, 1 lb bot.....lb.	19.00	21.00
Propionate, 1 lb bot.....lb.	10.00	12.00
Valerate, 1 lb bot.....lb.	14.00	15.00
Phenylpropylalcohol, 1 lb bot .....lb.	8.50	9.00
Rhodinol, 1 lb bot.....lb.	7.00	15.00
Skatol, 1 oz bot.....lb.	4.50	7.00
Terpinyl Acetate, 25 lb cans..lb.	.85	.90
Imported, 25 lb cans.....	.85	.90
TERPINEOL, CP, 1000 lb drs .....lb.	.37	.45
50 lb cans.....lb.	.39	.40
Absolute, 25 lb cans.....lb.	.48	.50
TOLYL ALDEHYDE, F.F.C. 40 lb. carboys.....lb	2.10	2.25
Valerianic Ether see Ethyl Valerate.....		
Vanillin (Clove Oil), USP..lb.	4.50	4.75
(Guaiacol) USP.....lb.	4.25	4.50

Essential Oils

Almond Bitter, USP, 5 lb bot lb.	2.75	2.85
Bitter, ffPA, 5 lb bot.....lb.	3.00	3.10
Sweet, 56 lb cans.....lb.	.75	.78
Almond Meal, 25 lb cans....lb.	.18	.19
Amber crude, 25 lb tins.....lb.	.23	.25
Rectified, 25 lb tins.....lb.	.55	.60
Amber liquid, 400 lb drs.....lb.	2.20	2.30
Ambergris, Black, boxes.....oz.	14.00	15.00
Gray boxes.....oz.	25.00	30.00
Angelica Root, 1 lb bot.....lb.	78.00	88.00
Anise Tech, 400 lb drums...lb.	.42	.45
USP, 60 lb cans.....lb.	.46	.49
Apricot Kernel, 50 lb cans...lb.	.22	.25
Bay, 25 lb tins N. F. V., 50.55% Phenol.....lb.	1.65	1.80
Terpeneless.....lb.	4.25	4.45
BERGAMOT, 25 lb coppers.lb.	1.85	2.00
Terpeneless.....lb.	6.25	8.00
Artificial, 25 lb cans.....lb.	1.00	1.40
Birch, Sweet, Northern, 25 lb tins.....lb.	3.00	3.10
Southern, 25 lb tins.....lb.	...	1.85
Birch Tar, rect., 5 lb bot.....lb.	.60	.65
Crude, 50 lb tins.....lb.	.13	.14
Bois de Rose, tins..... Brazilian.....lb.	1.30	1.40
Cayenne, tins.....lb.	2.70	3.20
Cade, 25 lb cans.....lb.	.32	.38
Cajuput, native, 50 lb tins..lb.	.52	.60
Calamus, 5 lb bot.....lb.	3.00	3.25
Camphor Sassa, 1000 lb drs..lb.	.16	.18
White, 400 lb drs.....lb.	.17	.19
Cans, 50 lbs.....lb.	.19	.21
CANANGA, Native 25 lb tins .....lb.	2.10	2.20
Rectified, 25 lb tins.....lb.	2.50	2.60
Caraway, USP.....lb.	2.05	2.25
CARDAMON, NF, 1 lb bot..lb.	14.00	24.
Cascarilla, 1 lb bot.....lb.	56.00	70.00
Cassia..... Redist, USP, 50 lb cans...lb.	1.15	1.20
Cedar Leaf, 50 lb tins.....lb.	.75	.80
Cedar Wood, light, 1000 lb drs .....lb.	.31	.35
Celery, 1 lb bot.....lb.	10.50	12.50
Chaulmoogra, USP 80 lb cases lb.	...	1.50
Cinnamom Ceylon, 1 lb bot..lb.	10.00	17.50
Leaf, 5 lb bot.....lb.	1.85	1.95
CITRONELLA Ceylon, 1000 lb drs.....lb.	.38	.39
50 lb tins.....lb.	.40	.41
Java, 400 lb drs.....lb.	.45	.47
50 lb tins.....lb.	.47	.49
Civet, Abyssin, horns.....oz.	2.10	3.00
Cloves, USP, 50 lb cans.....lb.	.95	1.00
6 lb bot.....lb.	1.05	1.15
Copaiba.....lb.	.65	.70
Coriander, USP, 10 lb bots..lb.	4.35	4.50
Croton USP, 25 lb tins.....lb.	2.50	2.75
Cubebs, USP, 5 lb bot.....lb.	2.65	2.85
Cumin, 1 lb bot.....lb.	7.50	9.00
Dill, 25 lb cans.....lb.	3.25	5.25
Erigeron, 20 lb tins.....lb.	1.15	1.40
EUCALYPTUS Austl, USP, 56 lb cans, cases.....lb.	.30	.32
500 lb drs.....lb.	.29	.31
Fennel, USP, 25 lb tins.....lb.	1.15	1.40
Geranium African, 25 lb tins..lb.	6.75	7.50
Bourbon, 28 lb tins.....lb.	5.25	5.90
Turkish, 28 lb tins.....lb.	2.15	2.50
Ginger, 1 lb bot.....lb.	3.40	3.75
Gingergrass, 28 lb tins.....lb.	2.50	2.70
Grape Fruit.....lb.	3.00	3.25
Hemlock, 25 lb tins.....lb.	.75	.90
Juniper Berries, USP, 25 lb tins .....lb.	1.50	3.25
Wood, 50 lb tins.....lb.	.50	.60
Labdanum, 5 lb bot.....lb.	5.50	6.00
LAVENDER, USP, 28 lb tins .....lb	2.75	4.50
Spike Spanish, 50 lb cans..lb.	.78	1.25
Lemon Ital, 25 lb cans.....lb.	1.25	1.40
California 35 lb cbys....lb.	...	.75
Lemongrass, native, 50 lb cans .....lb.	1.05	1.40
Limes, expressed, 25 lb tins..lb.	10.50	12.50
Distilled, 25 lb tins.....lb.	7.25	7.75
Linaloe Mex., 70 lb cases....lb.	...	1.40
Mace, distilled, 50 lb tins....lb	1.25	1.30
Mandarin, 25 lb cases.....lb.	3.75	4.00
Musk Tonquin, tins, Pods...oz.	18.00	20.00
Tonquin, tins, Grained..oz.	18.00	22.00
MUSTARD, USP, 1 lb bots.lb.	8.50	9.00
Artif, USP, 5 lb bot.....lb.	1.85	1.95
Neroli Bigarade, ¼ & ½ & 1 lb bot .....lb.	70.00	100.00
Petale, 1 lb bot.....lb.	90.00	100.00
Artificial, 1 lb bot.....lb.	5.00	15.00
Nutmeg, USP, 50 lb tins....lb	1.20	1.25
ORANGE BITTER, 25 lb tins .....lb	1.20	1.45
Sweet African 25 lb. tins..lb.	1.15	1.20
Sweet W Ind, 25 lb tins..lb	1.40	1.50
Italian, 25 lb cop.....lb	1.50	1.70
Orange American, Cold pressed 25 lb tins.....lb.	...	1.10
Distilled, 25 lb tins.....lb.	...	.55
Spanish, 25 lb tins.....lb.	...	2.00
Oil Orris, concrete.....oz.	3.50	4.00
Origanum, 50 lb cans tech...lb.	.25	.27
Parsley, 1 lb bot.....lb.	7.25	7.50
Patchouli, 5 lb bot.....lb.	3.50	4.25
Pennyroyal, dom, 25 lb tins..lb.	1.95	2.00
Imported, 25 lb tins.....lb.	1.70	1.85
Pepper Black lb.,.....	...	6.00
Peppermint, nat. 60 lb cases lb.	2.40	2.80
Redis, USP, 60 lb cs.....lb.	2.75	3.00
Petit Grain S A., 25 lb tins..lb.	1.30	1.40
French, 1 lb bot.....lb.	4.50	5.00
Italian, 25 lb tins.....lb.	2.20	2.30
Pimento Leaf, 25 lb tins ....lb.	1.15	1.30
Berries, 25 lb tins .....lb	3.00	3.10
Pine Needle Siberian, cans..lb.	.75	.95
Pinus, Sylvestris, 25 lb tins..lb.	1.40	2.00
Pumilio, USP, 25 lb tins...lb.	2.00	2.05
Rose Fr, 8, 16, & 32 oz pkgs..lb.	14.00	17.00
Bulg, 8, 10 & 32 oz pkgs...oz.	7.50	15.00
Rosemary, USP, 27½ lb tins..lb.	.40	.48
1000 lb drums.....lb.	.38	.46
Tech, 25½ lb tins.....lb.	.30	.32
Rue, 1 lb bot.....lb.	2.25	2.50
SANDALWOOD, E Ind ,USP, 100 lb case.....lb.	5.95	6.00
W Indian (Amyris), 25 lb. tins.....lb.	2.85	2.95
Sassafras, USP, 50 lb cans...lb.	.90	1.05
Artificial, 1000 lb drs, 60 lb cans.....lb.	.28½	.30
Safrol, cans.....lb.	.32	.34
Sage, Dalmatian, 25 lb. cans.lb.	2.10	2.20
Savin, 50 lb tins.....lb.	1.85	2.00
Snakeroot, Canada.....lb.	8.25	8.50
SPEARMINT, USP, 50 lb tins .....lb	1.15	1.35
Spruce, 50 lb tins.....lb	.75	.80
Tansy, American, 25 lb tins..lb.	2.00	2.05
Tar, 50 gal bbls.....lb.	.25	.30
USP, 50 gal bbls.....lb.	.75	1.50
Thyme, red, NF, 25 lb tins..lb.	.65	.92
White, NF, 25 lb tins.....lb.	.80	1.05
Tech, 110 lb drums.....lb.	.50	.55
Turpentine, USP, rect cbys..lb.	.27	.30
Vetivert Bourbon, 10 bot....lb.	8.75	9.00
Indian, 1 lb bot.....lb.	22.00	25.00
Java, 1 lb bot.....lb.	18.00	19.00
Wine, heavy, 1 lb bot.....lb.	1.50	1.60
WINTERGREEN Gaultheria, true, 25 lb tin.....lb.	8.00	10.00
Southern, 25 lb tins....lb.	3.75	4.00
Synthetic see Methyl salicylate.....		
Wormseed, Balt, 25 lb tins...lb.	2.25	2.45
Wormwood, dom, 25 lb tins..lb.	3.00	3.40
Ylang Ylang Bourbon, 10 lb tins No. 1.....lb.	6.00	7.00
10 lb tins No. 2.....lb.	4.65	4.90
Manila, 1 lb bot.....lb.	22.00	30.00

Drugs and Spices

Aconite Root, USP, bags....lb.	.14	.15
Agar Agar, No. 1, bales....lb.	.55	.58
Agar Agar No. 2, bales.....lb.	.50	.53
Aletris Root, bags.....lb.	.17	.19
Alkanet Root, bags.....lb	.11	.13
ALOES, Cape, 400 lb cases. lb.	.10½	.11
Curacao, 140 lb cases.....lb.	.10	.11
Socotrine, Whole, 300 lb cs lb.	.30	.32
Althea Root, bags.....lb.	.14	.16
Cut cases.....lb.	.24	.25
Angelica Root, bags.....lb.	.65	.75
Angostura Bark, bags.....lb	.19	.20
Anise seed Star, bags.....lb	.11	.11½
Spanish, bags.....lb	.15	.15½
ARABIC GUM, White, No. 1, 220 lb bags.....lb.	.16	.17
Seconds, 220 lb bags.....lb.	.14	.15
Sorts, Amber, 220 lb bags..lb.	.08	.08½
Powd, USP, 300 lb bbls....lb.	.11	.14
Areca Nuts, 100 lb bbls.....lb.	.06	.08
Powd, 100 lb bbls.....lb.	.10	.11
Arnica Flowers, bales.....lb.	.14	.15
Root, bags.....lb.	.38	.39
Arrowroot, St. Vincent, powd bbls.....lb.	.09	.09½
Asafoetida, 250 lb cases.....lb.	.18	.20
Powd, 50 lb boxes.....lb.	.35	.37
Balm Gilead Buds, bags....lb.	.20	.21
Balmony Herbs, bales.....lb.	.10	.12
BALSAM COPAIBA Para, 80 lb cases.....lb.	.30	.32
South American, USP, 80 lb cases.....lb.	.34	.36
Peru, 120 lb cases.....lb.	1.20	1.25
Tolu, 90 lb cases.....lb.	.75	.85
Barberry Bark, of root, bags lb.	.16	.18
Bayberry Bark, bales.....lb.	.07	.08
Wax bbls.....lb.	.20	.22
Bees Wax, White, cases.....lb.	.33	.36
Yellow refined cases.....lb.	.25	.28
Yellow Crude Bags.....lb.	.21	.24
BELLADONNA LEAVES, bale .....lb.	.18	.20
Root, bags.....lb.	.13	.15
Benzoin Gum, Siam, boxes...lb.	1.05	1.50
Sumatra, cases.....lb.	.22	.24
Berberis Aquafolium Root, bags .....lb.	.09	.10
Beth Root, bags.....lb.	.08	.09
Black Indian Hemp Root, 100 lb bags.....lb.	.11	.12
Blood Root, bags.....lb.	.11	.12
Blueflag Root, bags.....lb.	.12	.13
Boldo Leaves, bales.....lb.	.11	.13
Boneset Herb, bales.....lb.	.08	.09
Borage Flowers, bales.....lb.	.20	.21
Broomtop Herb Cut, bales..lb.	.10	.11
Bryonia Root, bags.....lb.	.10	.11
BUCHU LEAVES Short, 250 lb. bales.....lb.	.22	.24
Long bales.....lb.	.75	.80
Buckbean Leaves, bales.....lb.	.10	.11
Buckthorn Bark, bags.....lb.	.06	.07
Berries, bags.....lb.	.29	.34
Burdock Root, bags.....lb.	.12	.13
Seed bags.....lb.	.30	...
Burgundy Pitch, 110 stand gross for net.....lb.	.08	.09
Imported.....lb.	.10	.11
Calabar Beans, bags.....lb.	.15	.16
Calamus Root, blchd cases..lb.	.23	.25
Unbleached, bags.....lb.	.08	.09
Calendula Petals, imp bales..lb.	.75	.80
Calisaya Bark, bales.....lb.	.17	.18
Powdered, bbls.....lb.	.22	.23
Canary Seed, South America, bags.....lb.	.03½	.04
Morocco.....lb.	.04	.04½
Turkish.....lb.	.03¾	.04¼
Candelilla Wax, bags.....lb.	.11	.12
Canella Alba Bark, bales....lb.	.25	.26
Cannabis, U.S.P.....lb.	.16	.23
Cantharides, Chinese, cases..lb.	1.15	1.20
Powdered, boxes.....lb.	1.35	1.40
Russian, cases.....lb.	2.75	3.00
Powdered, boxes.....lb.	3.40	3.65
Caraway Seed, Dutch, bags..lb.	.10½	.11
Cardamon bleached, cases...lb.	.85	1.15
Decorticated, cases.....lb.	.67	.68
Carnauba Wax No. 1, 100 lb bags.....lb	.31	.32
Cascara Amarga, 150 lb bbls..lb.	1.25	1.30
So called bales.....lb.	.25	.30
CASCARA SAGRADA, 1931 bark .....lb.	.11	.12
1932 bark.....lb.	.10	.11
New crop.....lb.	.09	.10
Cascarilla Bark, quills, bales.lb.	.60	.65
Siftings, bbls.....lb.	.50	...
Cassia Batavia No. 1 bales...lb.	.11½	.12
Shortstick, bales.....lb.	.10½	.11½
Batavia No. 3, bales.....lb.	.08	.08½
China Select Rolls, cases..lb.	.05¾	.06½
Broken, bales.....lb.	.04	.04½
Saigon, thin.....lb.	.22	.22½
Buds, cases.....lb.	.12	.12½
Fistula, baskets.....lb.	.08½	.10
Catnip, Herb, bales.....lb.	.14	.15
Celery Seed, bales.....lb.	.36	.38
Ceresin Wax, White, bags...lb.	.08	.12
Yellow 200 lb. bags.....lb.	.08	.12
Imp white 100 lb. bags.lb.	.25	.40
CHAMOMILE FLOWERS Roman, bales.....lb.	.68	.70
Hungarian, cases.....lb.	.17	.18
Charcoal Willow, powd, bbls.lb.	06	06½
Wood, powd, bbls.....lb.	.04	.05
Chestnut Bark.....lb.	.07	.08
Leaves bales.....lb.	.05	.06
Chicle Gum, 200 lb. bales...lb.	.27	.30
Chiretta, bales.....lb.	.12	.13
Cinnamon, Ceylon, No. 1, bales .....lb.	.11½	.12
No. 2 bales.....lb.	.09½	.10
Clover Tops, Red, bags ....lb.	.19	.20
Cloves Zanzibar, bales.....lb.	.11	.11½
Cochineal, Black.....lb.	.51	...
Silver.....lb.	.45	...
Cohosh Root, Black, bags....lb.	.06	.07
Blue, bags.....lb.	.07	.08
Colchicum Root, bags.....lb.	.11	.13
Seed, bags.....lb.	.60	.65
COLOMBO ROOT, bags...lb.	.05	.07
Colocynth Pulp, bales.....lb.	.28	.30
Coltsfoot Leaves, bags.....lb.	.07	.08
Comfrey Root, bags.....lb.	.12	.13
Condurango Bark, bags.....lb.	.09	.10
Coriander Seed, Morocco, bags .....lb.	.05½	.06
Bleached, bags.....lb.	.08	.09
Corn Silk, bales.....lb.	.06½	.07½
Cotton Root Bark, bales...lb.	.08	.09
Cowhage, 1 oz tins.....oz.	1.00	...
Cramp Bark so called bales..lb.	06	.08
True, bags.....lb.	.23	.24
Cranesbill Root, bags.....lb.	.09	.10
CUBEB BERRIES, XX bags .....lb.	.30	.31
Powdered, boxes.....lb.	.32	.33
Culvers Root, bags.....lb.	.15	.16
Cumin Seed, Morocco, bags..lb.	.18	.19
Cuttlefish, Bone Trieste, Straps .....lb.	.25	.30
French, boxes.....lb.	.24	.28
Powdered, bbls.....lb.	.09	.10
Broken, bales.....lb.	.07	...
Damiana Leaves, bales.....lb.	.16	.17
Dandelion Root, Imp. bags..lb.	.16	.17
Deer Tongue Leaves, bales...lb.	.07	.09
Digitalis Leaves, bales.....lb.	.32	.34
Dogwood Bark, Jamaica bags .....lb.	.07	.08
American bales.....lb.	.06½	...
Doggrass Root, USP, cut bags .....lb.	.12	.13
Dragons Blood Mass, cases..lb.	.70	.85
Reeds, boxes.....lb.	.85	1.00
Echinacea Root, bags.....lb.	.21	.22
Elcampane Root, bags.....lb.	.06	.07
Elder Flowers, bags.....lb.	.15	.16
Elemi Gum, 85 lb cases.....lb.	11⅞	12⅛
Elm Bark, bundles.....lb.	.17	.18
Grinding bags.....lb.	.09	.10
Powdered, bbls.....lb.	.14	.15
Ephedra Vulgaris, bales.....lb.	.05	.06
ERGOT, 150-200 lb bags....lb.	.43	.50
Eucalyptus Leaves, bales....lb.	.06	.07
Euphorbia Pilulifera, Herb, bags.....lb	.06	.08
Euphorbium Gum, cases....lb.	.19	.20
Fennel Seed, French, bags...lb.	.07½	.08
German bags.....lb.	.28	.30
Foenugreek Seed, 200 lb bags .....lb.	.04½	.04¾
Fish Berries, 100-125 lb bag..lb.	.14	.15
Flax Seed, Whole 182 lb bbls.lb.	.05½	.06½
Ground, 180 lb bbls.....lb.	.06	.07½
Fringe Tree Bark or Root bags .....lb.	.10	.12
Fumigating Pastiles, boxes..lb.	.28	.30
Galangal Root, bags.....lb.	.08	.09
Galbanum Gum, cans.....lb.	.85	.90
Gamboge Gum, 100 lb cases..lb.	.55	.60
Powdered, cases.....lb.	.65	.70
Gelsemium Root, bags.....lb.	.07	.08
GENTIAN ROOT, bags....lb.	.12	.13
Ground bbls, boxes.....lb.	.14	.15
Powdered, bbls, boxes....lb.	.15	.16
Ginger, African, bags.....lb.	.05½	.05¾
Jamaica Grinding bags....lb.	.17½	.19
Cochin ABC & Lemon, bags .....lb.	.06¼	.06½ nom.
Ginseng Root, cultivated cs..lb.	8.00	10.00
Wild Southern, cases.....lb.	11.00	13.00
Golden Seal Root, bags.....lb.	.90	.95
Powdered, boxes.....lb.	1.00	1.10
Herb, barrels.....lb.	.35	.40
Grains of Paradise, bags...lb.	.10	.11
Grindelia Robusta, Herb, bale .....lb.	.07	.08
Guaiac Gum, 150 lb cases....lb.	.20	.22
Strained 75 lb cases...lb.	.70	.75
Guarana, tin cases.....lb.	.50	.55
Hellebore Root, Black, bbls. lb.	.05½	.06
White, 250 lb bbls.....lb.	.07	.08
Powdered.....lb.	.10	.11
Helonias Root, bags.....lb.	.25	.27
Hemp Seed, bags.....lb.	.03	.03½
Henbane Leaves, USP, bales.lb.	.21	.22
HENNA LEAVES, bales....lb.	.08	.09
Powdered.....lb.	.11	.15
Hops, bales.....lb.	.50	.55
Horehound, Herb, bales.....lb.	.07½	.08
Hydrangea Root, bales.....lb.	.06	.07
IPECAC ROOT, Cartagena, bags.....lb.	.75	.80
Powdered, 220 lb bbls...lb.	.85	.90
Nicaraugua 125 lb. bags lb.	.70	.75
Isinglass, American, 130 lb cases .....lb.	.95	1.00
Russian (Beluga), boxes...lb.	4.50	...
Jaborandi Leaves, bales.....lb.	.11	.12
Jalap Root, Whole, 150 lb bag.....lb.	.16	.17
USP, Powd, 250 lb bbls....lb.	.20	.21
Japan Wax 224 lb. cases.....lb.	.07	.07¾
JUNIPER BERRIES, 125 lb bags.....lb.	.05½	.06
Kamala, boxes.....lb.	.22	.23
Karaya Gum, Powdered, bbls.lb.	.10	.25
Kava Kava Root, bags.....lb.	.13	.14
Kino Gum, Black, cases.....lb.	.70	.75
Kola Nuts, 150 lb bags.....lb.	.05½	.06
Lady Slipper Root, bags....lb.	.30	.32
Larkspur Seed, bags.....lb.	.25	.27
Laurel Berries, bags.....lb.	.08	.09
Leaves, Greek, bales .....lb.	.04½	.04¾
Lavender Flowers, Ordinary.lb.	.30	.32
Selected.....lb.	.40	.42
Lemon Peel, bags.....lb.	.09	.10
LICORICE ROOT, Whole bbls .....lb.	.12	.15
Spanish Natural bales....lb.	.05½	.07
Powdered, bbls.....lb.	.09	.11
Selected Cases.....lb.	.12	.15
Cutting, 125 lb bags....ln.	.06	.06½
Turkish, 150 lb bales....lb.	.05	.06
Linden Flowers with leaves, bales.....lb.	.14	.15
Without leaves, bales...lb.	.17	.18
Liverwort Leaves, bales.....lb.	.15	.16
Lobelia, Herb, bales.....lb.	.40	.45
Seed, bags.....lb.	.40	.42
Lovage Root, Imp., bags....lb.	.23	.25
Lupulin N. F., tins.....lb.	1.65	1.90
Lycopodium, 88 lb. cases....lb.	.32	.34
MACE SIAUW, No. 1, cases .....lb.	.39	.40
Banda No. 1, cases.....lb.	.47	.48
Batavia No. 2, cases.....lb.	.25	.26
Malva Flowers, Blue, bales..lb.	.55	.60
Black, bales.....lb.	.18	.33
Leaves, bales.....lb.	.12	.13
Manaca Root, bales.....lb.	.19	.20
Manna, Large Flake, cases...lb.	.90	.95
Small Flake, cakes.....lb.	.70	.75
Sorts, cases.....lb.	.50	.55
Mandrake Root, bags.....lb.	.11	.12
Marjoram, Herb.....		
French, No. 1 bales.....lb.	.31	.32
German, bales.....lb.		Nom.
Mastic Gum, 120 lb. cases..lb.	.37	.40
Matico Leaves, bales.....lb.	.19	.21
Mezereon Bark, bags.....lb.	.19	.20
Millet Seed, Yellow, bags...lb.	.04	.04½
Montan Wax, Crude, bags..lb.	.09	.10
Bleached, pure. bags.....lb.	.30	.35
Moss, Iceland, bales.....lb.	.09	.10
Irish, Bleached, bales....lb.	.14	.15
Mullein Flowers, tins.....lb.	.95	1.00
Leaves, bales.....lb.	.07	.07½
Musk Root, Russian, bags...lb.	.06	.07
Myrrh Gum, 200 lb, cases...lb.	.25	.26
Nutgalls, Chinese, bags.....lb.	.22	...
Aleppy, bags.....lb.	...	.20
Powdered, bags.....lb.	.13	.15
Nutmegs, 110's cases.....lb.	.12	.12½
75's & 80's cases .....lb.	.17	.18
Grinding, bags, W.I.....lb	.08½	.09
NUX-VOMICA Buttons, bag .....lb.	.05	.06
Powdered, 200 lb bbls..lb.	.08½	.09½
Oak Bark, bags.....lb.	.05½	.06
Olibanum Gum, 280 lb cases Siftings.....lb.	.07	.07½
Tears, No. 1 Extra.....lb.	.19	.21
No. 2.....lb.	.14	.15
No. 3.....lb	.09	10
Opium Gum, USP, cases....lb.	10.00	11.00
Granular, cans.....lb.	11.00	12.00
Powdered, USP, cans....lb.	11.00	12.00
Orange Flowers, cases.....lb.	.25	30
Peel, Bitter, bags.....lb.	.08	.09
Sweet bags,.....lb.	.12	.13
ORRIS ROOT, Flor. bid. bags .....lb.	.10	.11
Powdered, 200 lb bbls..lb.	.13	.14
Verona, bags.....lb.	.07	.08
Powdered, 200 lb bbls..lb.	.12	.13
Fingers, boxes .....lb.	1.10	1.20
Ozokerite Wax, White.....lb.	...	...
Bags.....lb.	.28	.40
Green, Hard, bags.....lb.	.33	.42
Yellow, Refined, bags....lb.	.22	.28
Papain, Crude, 150 lb cases..lb	1.55	1.60
Pure, Powdered, 10 lb bot..lb.	1.85	2.20
Paprika, Spanish, bags.....lb.	.20	.24
Mild Hungarian, bags....	.30	.32
Pareira Brava Root, bags....lb.	.16	.18
Passion Flower, bales.....lb.	.05½	.06½
Patchouli Leaves, bales.....lb.	.15	.16
Pennyroyal, Herb, 100 lb bags .....lb.	.08	.09
Leaves, 100 lb bags. .....lb.	.12	.13

PEPPERMINT LEAVES, Imp bales lb.	.30	.50
Domestic, bales lb.	.20	.22
Pichi Leaves, bags lb	.08	.09
Pimento, bags lb.	.05½	.06
Pink Root, True, bags lb.	.26	.28
Pleurisy Root, bags lb.	.13	.14
Poke Berries, bags lb	.15	.16
Root, 200 lb bales lb.	.05½	.06
Pomegranate Bark of Root, bags lb.	.25	.28
Bark of Fruit, bags lb	.15	.20
Bark of Tree, bags lb.	.15	.17
POPPY FLOWERS, Red, bags lb.	.35	.40
Prickly Ash Bark lb.	.12	.15
Southern bags lb.	.11	.11½
Northern, bags lb.	.12	.13
Berries, bags lb.	.20	.21
Prince's Pine, bales lb.	.15	.20
Psyllium Seed, Black, bags lb.	.13	.15
Plantago Seed, Blonde, Bags lb.	.05¼	.06
Pulsatilla, Herb, bags lb.	.11	.12
Pumpkin Seed, bags lb.	.11	.12
Pyrethrum Flowers lb.	.26	.28
Pwd., pure, 200 lb bbls. lb.	.29	.31
Quassia Chips, bags lb.	.07	.08
Quebracho, bulk, 125 lb. bbl. lb.	.19	.20
Quince Seed, Spanish bags lb.	.60	.65
Persian, bags lb.	.85	1.25
Rape Seed, German, bags lb.	.04¾	.05½
Dutch, bags lb.	.05	.05½
Raspberries, Dried, bbls lb.	.28	.33
Red Saunders, bags lb.	.09	.10
Rhatany Root, bags lb.	.11	.12
Rhubarb Root, HD, cases lb.	.25	.26
Powdered, bbls lb.	.28	.30
Rosemary Leaves, bales lb.	.05½	.06
Flowers, cases, bales lb.	.28	.32
Rose Petals, pale lb.	.15	.16
Red lb.	.50	.55
Rue, Herb, bales lb.	.16	.18
Sabadilla Seed, bags lb.	.27	.28
Powdered, bbls lb.	.30	.31
SAFFRON FLOWERS, American, bales lb.	.17	.19
Valencia, 1 lb cans lb.	13.00	13.25
Sage Dalmatian, bales lb.	.04¾	.05¼
Sandarac Gum, 300 lb bbls. lb.	.48	.50
Sarsaparilla Root, Honduras, bales lb.	.55	.60
Mexican, bales lb.	.13	.14
Sassafras Bark, Ordinary, bales	.08	.10
Select, bales lb.	.13	.15
Savory Leaves, bale lb.	.06	.06½
Saw Palmetto Berries, bags lb.	.06	.07
Scammony Resin, boxes lb.	1.30	1.35
Root, bags lb.	.06	.07
Senega Root, bags lb.	.38	.40
SENNA ALEX., 150 lb cases lb.	.20	.25
Half leaf 150 lb bales lb.	.08	.10
Sifting, 400 lb bales lb.	.08	.09
Tinnevelly, Bold, 350 lb bales lb.	.11	.13
Medium Leaf lb.	.09	.10
Small Leaf lb.	.06	.07
Pods, 350 lb lb.	.08	.09
Powdered, 200 lb lb.	.08	.09
Serpentaria Root, bags lb.	.44	.45
Simaruba Bark, bales lb.	.23	.25
Skullcap Leaves, Eastern, bales lb.	.25	.30
Western, bales lb.	.14	.24
Skunk Cabbage, Natural, bales lb.	.13	.15
Snake Root, Canada Natural, bags lb.	.16	.18
Canada, Stripped, bags lb.	.40	.45
Soap Bark lb.	.08	.09
Cut, 125-175 lb bags lb.	.07½	.08½
Crushed, 200 lb bbls lb.	.15	....
Powdered, bbls lb.	.10	.11
Spearmint Leaves, American, bales lb.	.30	.35
Spermaceti, blocks, cakes, cases lb.	.20	.21
Bulk lb.	.19	.20
Spikenard Root, bags lb.	.07	.08
Squaw Vine, bales lb.	.11	12
Squills, White, tested lb.	.07½	.08½
Powdered, bulk lb.	.13	.15
Stavesacre Seed, bags lb.	.18	.19
Stillingia Root, bags lb.	.06	.07
Stone Root, bags lb.	.07	.08
St. Ignatius Beans, bags lb.		.90
St. John's Bread, bags lb.	.06	.07
STRAMONIUM LEAVES, bales lb.	.15	.17
Seed, bags lb.	.07½	....
Strophanthus Seed, Kombe, bags lb.	1.60	1.65
Styrax Liquid, Artificial lb.	.26	.35
Genuine, USP lb.	.38	.43
Sunflower Seed, bags Calif lb.	.05	.06
Tamarinds, bbls lb.	.05½	.06½
Kegs keg	3.75	3.85
Tansy, Herb, bales lb.	.12	.13
Thus Gum, 450 lb bbls lb.	.05½	.06½
THYME, French, bags lb.	.14½	.15
Tonga Root lb.	.20	.23
Bark lb.	.25	.28
Tonka Beans, Angostura Cases	2.50	2.75
Para cases lb.	.65	.75
Surinam cases lb.	1.50	1.60
Tragacanth Gum, No 1, 100 lb. cases lb.	1.00	1.10
No. 2 lb.	.90	1.00
No. 3 lb.	.70	.80
Powdered, 50 lb boxes lb.	.60	1.00
Turkish cases lb.	.50	.60
Turmeric Root Madras, bags lb.	.06	.06½
Aleppy bags lb.	.06½	.06¾
Powdered lb.	.09½	.10
China bags lb.	.11	.12
Turpentine Venice True, 80 lb cases lb.	.30	.38
Artificial, 80 lb cases lb.	.15	.16
Uva Ursi Leaves, bales lb.	.05½	.06½
Valerian Root, Belgium bags lb	.15	.17
VANILLA BEANS, Mexican, whole, cases lb.	3.00	4.00
Cuts, cases lb.	2.40	2.60
Bourbon, cases lb.	.80	1.40
Vetivert Root, 100 lb bags lb.	.20	.25
Violet Flowers, bags lb.	.85	.90
Wahoo Bark of Root, bags lb.	.38	.40
Bark of Tree, bags lb.	.16	.18
White Pine Bark, Roseed, bags lb.	.05½	.06
White Poplar Bark, bags lb.	.06	.07½
Wild Cherry Bark, Natural thin, Green lb.	.06	07
Rossed bales lb.	.09	10
Thick Rossed, bales lb.	.04	05
Wild Indigo Root, bags lb.	.09	.10
Willow Bark, bags lb.	.05	.06
White, bags lb.	.15	...
Witch Hazel Bark, bags lb.	.05½	.06½
Leaves, bales lb.	.06	.07
Wormseed, American, bags lb.	.06	.07
Wormwood, Herb, Imp., bales lb.	.09	.10
Yellow Dock Root, bags lb.	.08	.09
Yerba Mate, bags lb.	.15	.17
Santa, bags lb.	.07	.08

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